



EpsonFpMate

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1 Overview

The aim of this manual is to provide information pertinent to software designers and software houses who wish to easily interface Epson fiscal printers using the EpsonFpMate fiscal driver. All communication protocol management is handled and controlled by EpsonFpMate.

Epson FP printers can be easily managed by means of simple TXT or XML files. It also has a control panel accessible via the Systray. EpsonFpMate can be programmed to create output log files that contain all sorts of useful information such as that relating to commercial document print outs or from the issuing of commands.

EpsonFpMate is provided with two utilities:

- EpsonFpMateConfig: Used to set the EpsonFpMate environment.
- EpsonFp2Config: Used to set the EpsonFp2 OCX library environment.

EpsonFpMate has been developed under Windows .NET technology. When using the Windows 98/2000/XP operating systems, the .NET framework (minimum version 2.0) must be loaded on your computer. Windows 7 and beyond should already include .NET Framework. Windows 10 either needs .NET Framework to be installed or .NET Framework 3.5 needs to be manually activated through the "activate/deactivate Windows functions" configurator within the Windows operating system.

2 List of Related Documents

FP xxx manuale operatore
EpsonFp2 Active X / OCX Control user manual
EpsonFpSuite release notes

3 Abbreviations and Terms

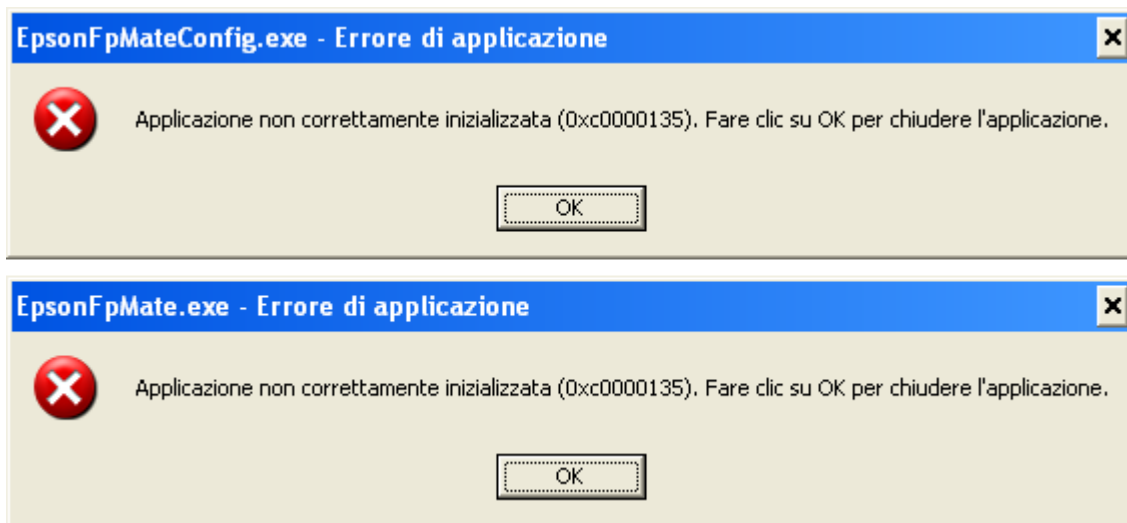
EJ: Electronic Journal (EJ, MPD and DGFE all refer to the same component)
DGFE: Dispositivo Giornale di Fondo Elettronico (former name for EJ)
MPD: Memoria Permanente di Dettaglio (new name for EJ)

Commercial document (documento commerciale in Italian) is new name for fiscal receipt (scontrino fiscale in Italian).

Management document (documento gestionale in Italian) is the new name for non-fiscal receipt (scontrino non-fiscale in Italian).

4 Installation

If the following errors occur, please make sure .NET Framework is installed.



5 EpsonFpMateConfig

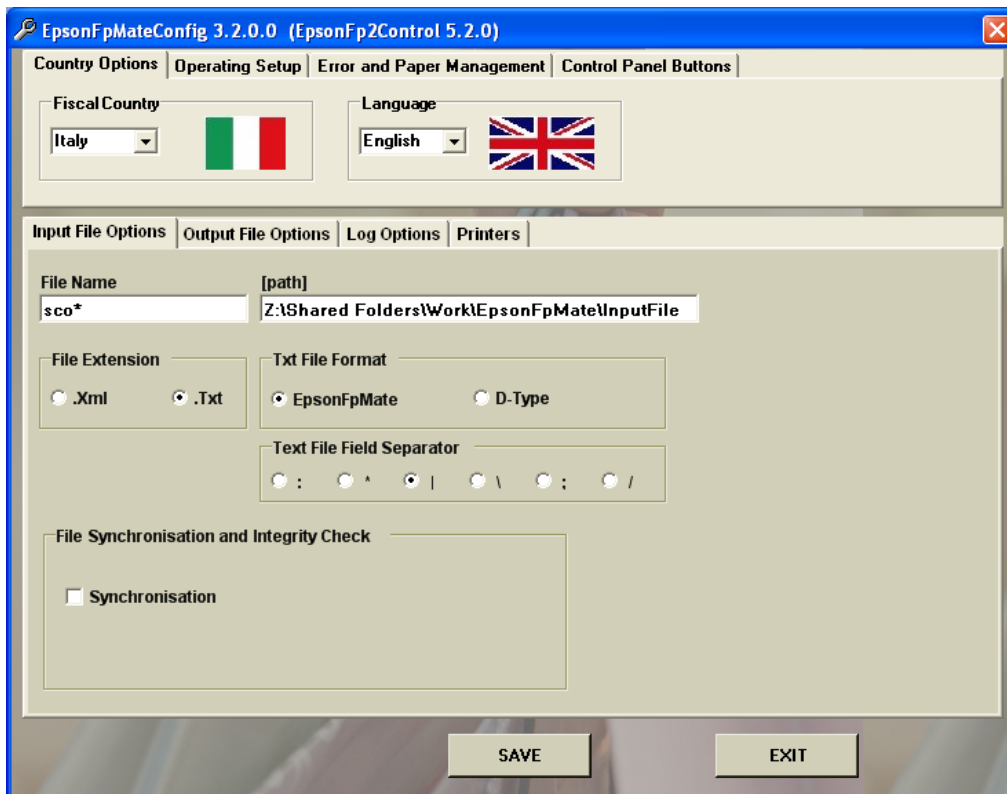
5.1 Overview

After having installed EpsonFpMate, the EpsonFpMateConfig tool should be opened. This utility creates and edits the "Settings.xml" file that is read by the EpsonFpMate application to personalise its behaviour. The Settings.xml path depends on the variant of Windows and the type of active user. Examples are:

- Windows XP:
 - C:\Documents and Settings\All Users\Dati applicazioni\EPSON\EpsonFpMate
- Windows 7 and above:
 - C:\ProgramData\EPSON\EpsonFpMate
 - C:\Users\<username>\AppData\Local\VirtualStore\ProgramData\EPSON\EpsonFpMate

EpsonFpMate must be closed before launching this utility. The following can be configured:

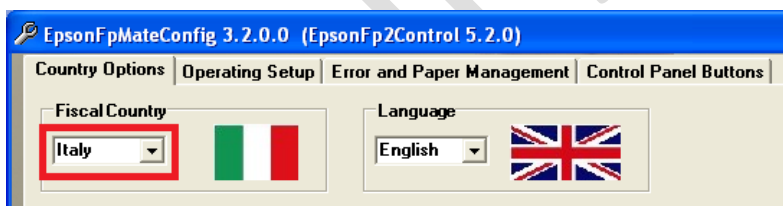
- Country Options
- Operating Setup
- Error and Paper Management
- Control Panel Buttons
- Input File Options
- Output File Options
- Log Options
- Printers



5.2 Country and Language Options

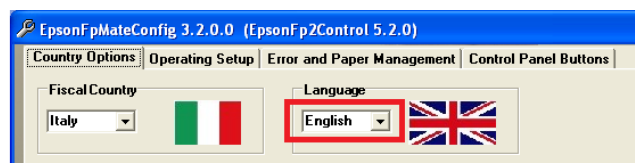
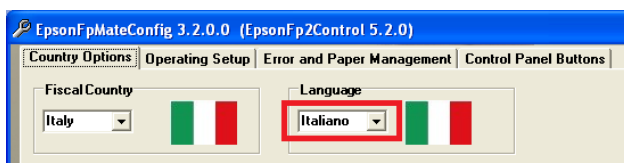
5.2.1 Fiscal Country

Selects the country where the printer is to be used. Fixed Italy value – The Greek option is no longer supported.



5.2.2 Language

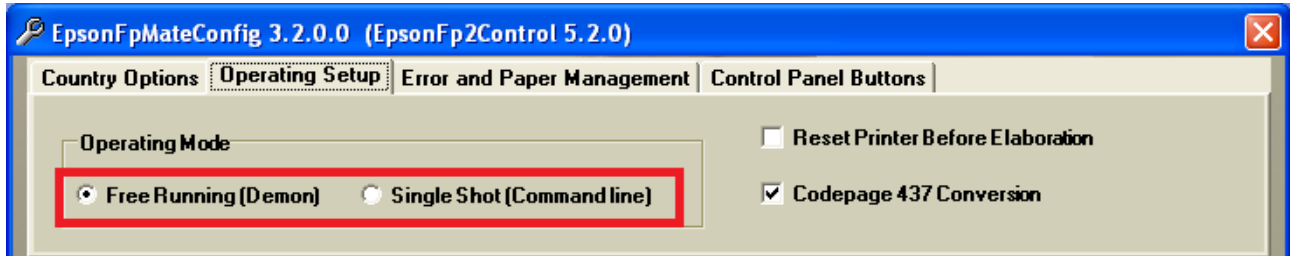
Selects the language for menus, descriptions and messages generated by EpsonFpMate and in its Control Panel. N.B. This is not the same as the language used in the EpsonFpMateConfig forms. Choose Italian or English.



5.3 Operating Setup

5.3.1 Operating Mode

EpsonFpMate can operate in either "Free Running" or "Single Shot" mode.



- In "Single Shot" mode, the application must be started by a command line string that has the file to be processed as an argument plus an optional check file argument separated by pipe ("|"). It then closes. An alternative Settings.xml file can also be specified (please refer to chapter 7)

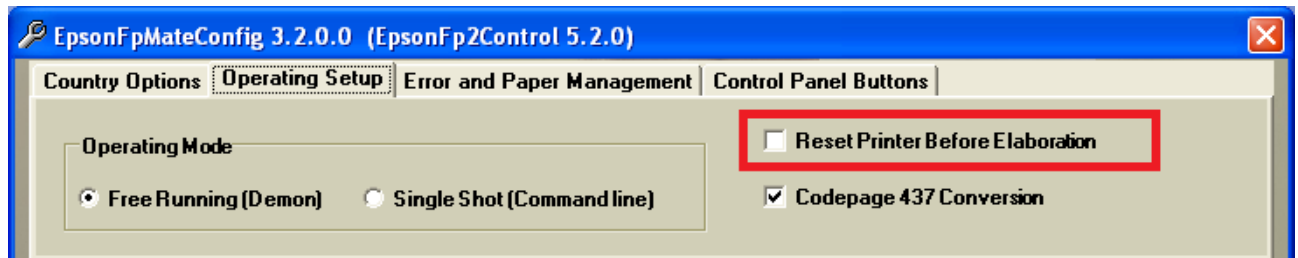
EpsonFpMate in Single Shot Mode).

- In "Free Running" mode, once the application has been started, it is always running and scans (every 125 mS) for files to process in a chosen input folder. The following points should be taken into consideration:
 - The naming convention rule and the path where the input files will be located must be defined.
 - Epson recommend using different filenames, adding a timestamp for example.
 - Epson recommend using a dedicated input folder.
- In "Free Running" mode, a watchdog process is also started (EpsonFpMateSpv). It monitors the EpsonFpMate process and will automatically restart it if it has closed unexpectedly.

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5.3.2 Reset Printer Before Elaboration

EpsonFpMate can be configured to perform a printer reset prior to file elaboration:



The "Reset Printer Before Elaboration" option applies to the following file types:

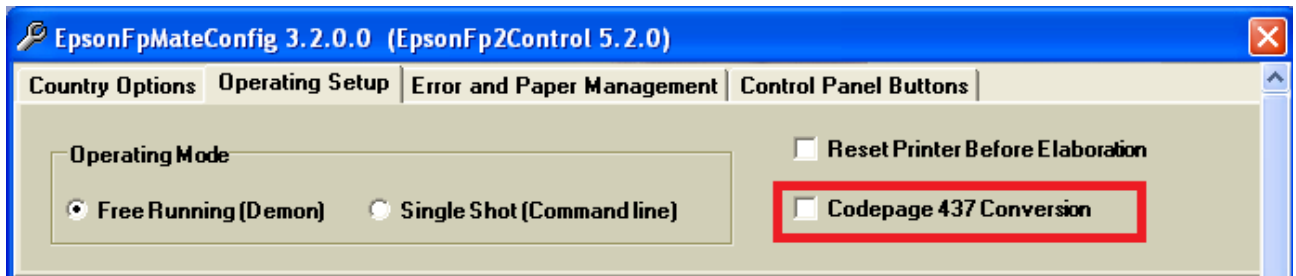
- printerFiscalReceipt
- printerNonFiscal
- printerFiscalReport
- printerFiscalDocument

When activated, a printer reset command is sent automatically to the printer prior to file elaboration. A reset carries out the following operations:

- Places the printer in the "STATO REGISTRAZIONE" condition irrespective of the current state.
- Closes any open management document.
- Cancels any open commercial document.
- Cancels any open refund document or void document.
- Cancels any open direct invoice printing two copies.
- Cancels any open box office ticket furthermore switching the printer into commercial document mode.
- Unblocks the keyboard previously blocked via the directIO|opBloccoTastiera (alias directIO|DisableKeyboard) command.
- Erases the keyboard buffer.
- Terminates a possible SET 22 printer test condition.

5.3.3 Codepage 437 Conversion

Epson printers use codepage 437 to print extended characters such as accented vowels:



Windows PCs in Italy usually use codepage 1252. In order to seamlessly print and display extended characters such as those in item descriptions, EpsonFpMate can automatically perform a conversion to codepage 437. The setting also applies to lines read from the MPD (EJ) whereby the conversion is in the reverse direction from codepage 437. The communication protocol document fully describes codepage 437. To correctly manage extended characters, Epson recommends input files with either UTF-8 or UNICODE encoding. Please note the following:

- Characters from 176 to 223 are not converted to or from as they are graphical.
- The Euro symbol does not exist in codepage 437 and is a special case.

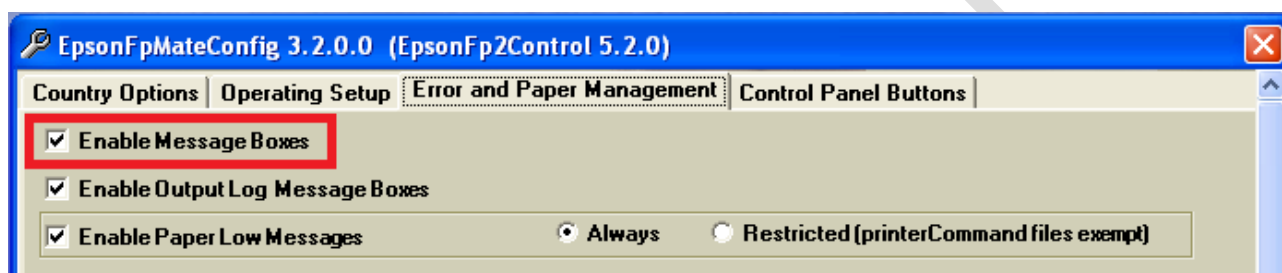
The euro symbol can be both printed and displayed. The SET 15/16 setting indicates the incoming code used for the mapping. The default is 156 (£). Code 156 received in a sale, refund or payment etc. will both print and display the Euro symbol. Code 156 received in a displayText message will display the Euro symbol. In addition, the Euro symbol is also hard mapped to code 96 (grave accent `) for printing only.

5.4 Error and Paper Management

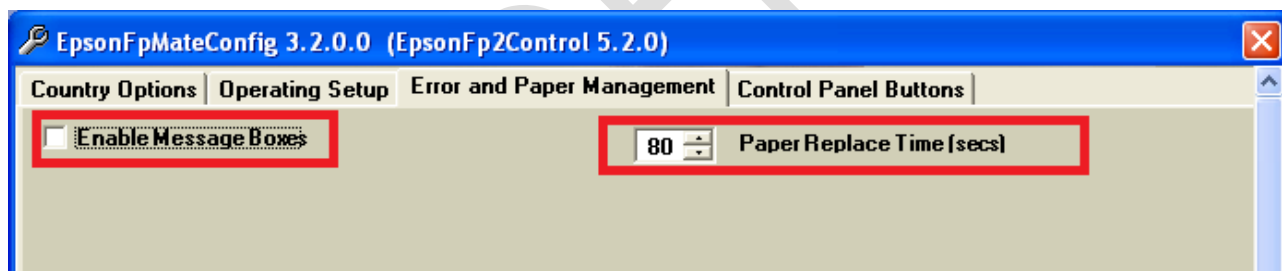
If an error occurs, EpsonFpMate saves the error codes in the return file and furthermore stores them in the output log files. Furthermore, optional pop-up message boxes regarding errors and warnings can be activated. Certain options are exposed or hidden depending on previous selections.

5.4.1 Message Boxes

When message boxes are enabled, EpsonFpMate requires operator intervention in order to decide how to manage the error:

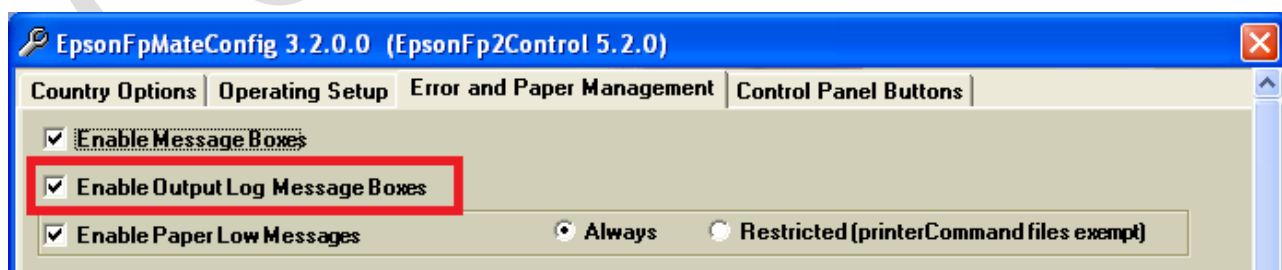


When disabled, EpsonFpMate does not require operator intervention. Furthermore, as soon as the printer goes offline (typically caused by a paper out condition), EpsonFpMate waits the configurable "Paper Replace Time" period (default 80 seconds):



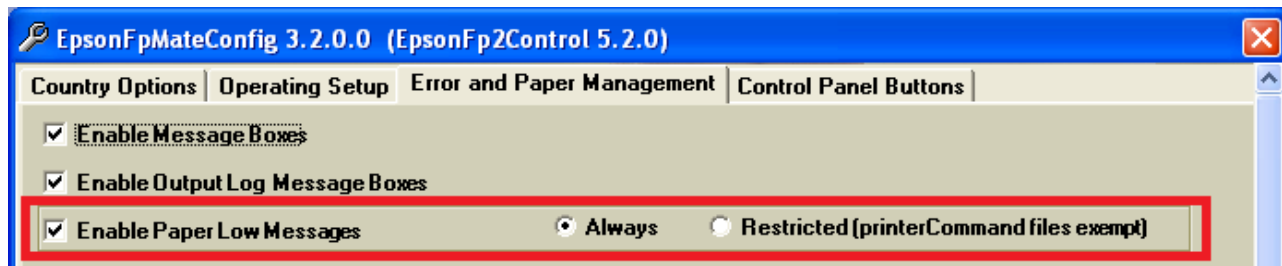
5.4.2 Output Log Message Boxes

Output Log messages relate to errors during file elaboration and are saved in the Output Log (if enabled). The details of the error can also be presented as a message box:



5.4.3 Paper Low Messages

The diagnostic "Paper Low" warning can also appear as a message box:



If the "Restricted" option is selected, paper low warnings do not appear when a printerCommand file is processed.

5.4.4 Message Boxes Setting Combinations

Message Boxes	Paper Low Message	Paper Low Condition	Out of Paper or Cover Open Event (Printer Offline)
Enabled	Enabled – sub option "Always"	All documents are printed in their entirety. Afterwards, a message box appears on the screen indicating that the paper is low. To proceed, the operator simply clicks the OK button.	The behaviour depends at which point the event occurred. <u>After having processed and sent all file commands:</u> An alert appears on the screen. The operator can simply acknowledge it. After replacing the paper roll and/or closing the printer cover, the fiscal printer firmware may or may not reprint the commercial document depending on the exact point the event triggered.
Enabled	Enabled – sub option "Restricted"	All documents are printed in their entirety. The message box indicating that the paper is low does not appear when "printerCommand" input files are processed.	<u>Before having processed and sent all file commands:</u> A windows form appears requesting either to retry the current file or cancel the current operation. In the latter case, the output file indicates that the task was not completed. A second message box appears indicating Error 3 (offline). After replacing the paper roll and/or closing the printer cover, if a commercial document was in progress, the fiscal firmware reprints the lines up to point that the event triggered. If Retry is selected, the remaining lines are then printed out.
Enabled	Disabled	Paper low condition has no effect. It is ignored by EpsonFpMate. It continues working normally.	Management documents are never reprinted automatically by the fiscal firmware.
Disabled	Selection not shown		If the printer goes back online within the "Paper Replace Time" period, processing resumes. If the timeout expires, EpsonFpMate cancels the current file and writes appropriate information in the output files. If it was printing a document, it remains in the open condition.

5.4.5 Printer Power Supply Interruptions

The error management described in the previous chapter also applies whenever a printer power supply interruption occurs while EpsonFpMate is active.

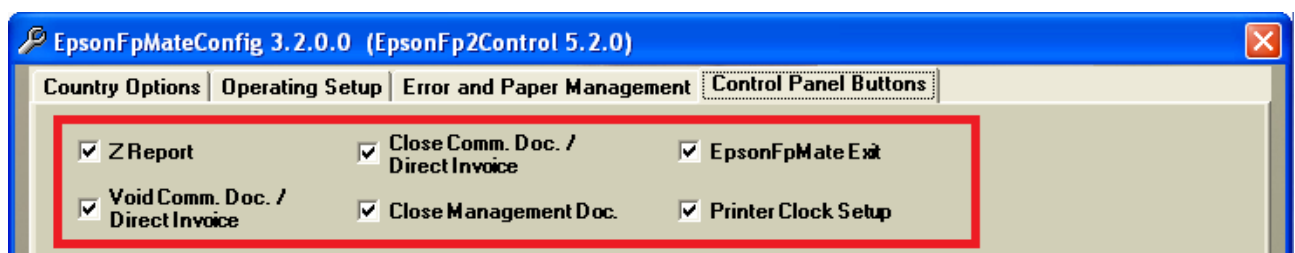
Power Supply Interruption whilst there are no EpsonFpMate Requests for the Printer	Power Supply Interruption whilst Printing a Document
<p>Minimal effect.</p> <p>After power is restored to the printer the system is ready as before.</p> <p>In the case of TCP/IP and USB, the connection will be lost and there will be a small delay when the next file is processed or when the control panel is opened while EpsonFpMate reopens the connection.</p>	<p>As with printer offline events, the behaviour is related to the Message Boxes settings.</p> <p>1) Message Boxes Enabled</p> <p>A Windows form alert appears on the screen regarding the event. Once the printer is ready, the operator can either choose to either cancel or retry. Retry means that EpsonFpMate proceeds from the point at which communication was lost. Cancel abandons the current file processing. It does not cancel the open document.</p> <p>2) Message Box Disabled</p> <p>EpsonFpMate abandons the current file processing. The return file indicates that the current working state has been interrupted because the printer is offline (the task has not been completed).</p> <p>In both cases, if it was printing a document, it remains in the open condition. Upon power restoration, the printer prints a power interruption message, cuts the paper and then prints it again up to the same point. This is also true with reports.</p>

5.4.6 Control Panel Buttons – Enabling and Disabling

The EpsonFpMate control panel allows some common requests to be sent to the printer by an operator. There are 13 request buttons on the EpsonFpMate control panel. Some of them can be disabled with EpsonFpMateConfig. The buttons that can be enabled/disabled are:

- Z-report printout (fiscal daily closure).
- Void commercial document / direct invoice.
- Forced closure of open commercial document or direct invoice.
- Forced closure of management document.
- EpsonFpMate program shutdown. When disabled, it is not possible to close the program except using the "Alt F4" sequence.
- Date and time setup.

Buttons de-selected here will be disabled and will not be visible in the EpsonFpMate control panel:



5.5 Input File Options

The following parameters can be configured:

- File Name and [path] – Mandatory. The input file naming convention rule and the path where EpsonFpMate searches for files when operating in "Free Running" mode. Paths can also be on shared network drives. EpsonFpMate is not case-sensitive to filenames.

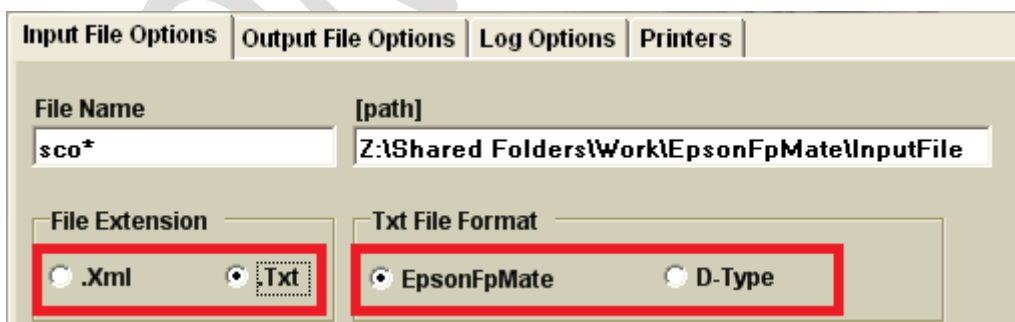


The filename does not include the extension since EpsonFpMate uses either .txt or .xml fixed extensions. The wildcard * is permitted; Epson recommends using it in conjunction with fixed strings rather than using it alone.

Furthermore, Epson does not recommend using the same filename repeatedly but rather to use sequence numbers and/or timestamps in the filename. This aids maintenance and troubleshooting.

Epson recommends a dedicated input directory.

- File Extension and Txt File Format – EpsonFpMate supports three input file formats. Initially choose between two file extensions:
 - .Xml
 - .Txt (of which there are two possible formats):
 - EpsonFpMate.
 - D-Type. EpsonFpMate can parse D-Type formatted files.



In both cases EpsonFpMate is not case-sensitive to file extensions.

- Text File Field Separator – The choices only appear if the File Extension is ".Txt" and the format is EpsonFpMate. In this mode, the separator (delimiter) used to differentiate the different data fields inside the records must be selected. The default is "|" (pipe). Commas and dots are not valid as they could be confused with prices.

The screenshot shows the 'Input File Options' tab of a configuration window. It contains the following elements:

- File Name:** A text box containing 'sco*'.
- [path]:** A text box containing 'Z:\Shared Folders\Work\EpsonFpMate\InputFile'.
- File Extension:** Two radio buttons: '.Xml' (unselected) and '.Txt' (selected and highlighted with a red box).
- Txt File Format:** Two radio buttons: 'EpsonFpMate' (selected and highlighted with a red box) and 'D-Type' (unselected).
- Text File Field Separator:** A group box containing six radio buttons: ':' (unselected), '^' (unselected), '|' (selected and highlighted with a red box), '\' (unselected), ';' (unselected), and '/' (unselected).

- File Synchronisation and Integrity Check – Provides extra file handling capabilities:
 - When "Synchronisation" is selected, EpsonFpMate expects an additional check file associated with each input file. Firstly, the input file is saved in the input directory. Secondly, the check file (having the same filename but with a different extension) is saved perhaps after a short delay. This sequence is controlled by your software application. The check file indicates to EpsonFpMate that the file transfer of the input file has been completed thus preventing truncated files from being read. The check file can be empty. The default extension is "on". EpsonFpMate supports extensions up to three characters in length. The dot character "." must not be used.
 - When "Integrity Check" is selected, EpsonFpMate also verifies the integrity of the input file. Your software application must provide the MD5 string in the check file. EpsonFpMate applies an MD5 algorithm to the associated input file data and compares it to the string in the check file. The input file is only processed if it's MD5 result and the check file's string match, otherwise no processing is performed. MD5 is the only algorithm type currently supported.

The screenshot shows the 'Input File Options' tab of the EpsonFpMate configuration window. The 'File Synchronisation and Integrity Check' section is highlighted with a red box. It contains the following settings:

- File Name:** [path] sco*
- File Extension:** ☐ .Xml ☒ .Txt
- Txt File Format:** ☒ EpsonFpMate ☐ D-Type
- Text File Field Separator:** ☐ : ☐ ^ ☒ | ☐ \ ☐ ; ☐ /
- File Synchronisation and Integrity Check:**
 - ☒ Synchronisation
 - ☒ Integrity Check
 - Control File Extension: on
 - Kind (hash type): MD5

5.6 Output File Options

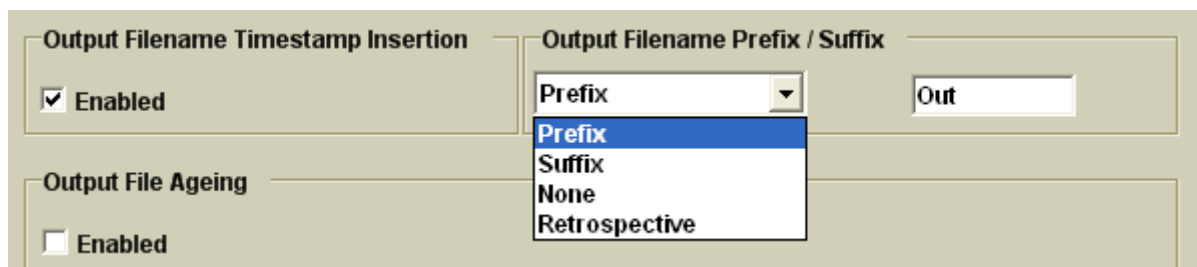
The following parameters can be configured:

- **Output File** – If enabled, it creates an output file in the directory specified under [path] for each input file received. Epson do not recommend using the same input filename time after time but rather to use sequence numbers and/or timestamps in the filename. This is because the output file of the same name would be constantly overwritten without any warnings.



- **Output Filename Timestamp Insertion** – If selected, EpsonFpMate automatically modifies the output filename appending the timestamp in the yyyyymmddhhmmss format.
 - **Output Filename Prefix / Suffix** – Permits one of four possible modes:
 1. **Prefix** – The user configurable string is inserted as a prefix in the output filename.
 2. **Suffix** – The user configurable string is inserted as a suffix in the output filename. If Output Filename Timestamp Insertion is activated, the suffix is placed after the timestamp.
 3. **None** – No prefix or suffix is inserted in the filename.
 4. **Retrospective** – EpsonFpMate behaves in the same manner as prior to the introduction of the new prefix / suffix options. The fixed "Out" string is inserted as prefix or suffix according to the type of file:
 - a. **TXT file** – The txt extension is replaced with Out.
e.g. sco1234.Out / sco1234-20210104121430.Out
 - b. **XML file** – "Out" is inserted as a prefix and the xml extension is unaltered.
e.g. Outsco1234.xml / OutSco1234-20210104121430.xml

In both cases Timestamp Insertion is still possible.



- **Output File Ageing** – Sets automatic deletion of old output files. There are two thresholds that can be configured:
 1. **Max Days** – The maximum permissible age of the file after which it will be deemed ready for deletion.
 2. **Max Old Output Files** – The maximum number of output files allowable.

In both cases the value zero or blank deactivates the setting. Either one of the thresholds or both can be configured.

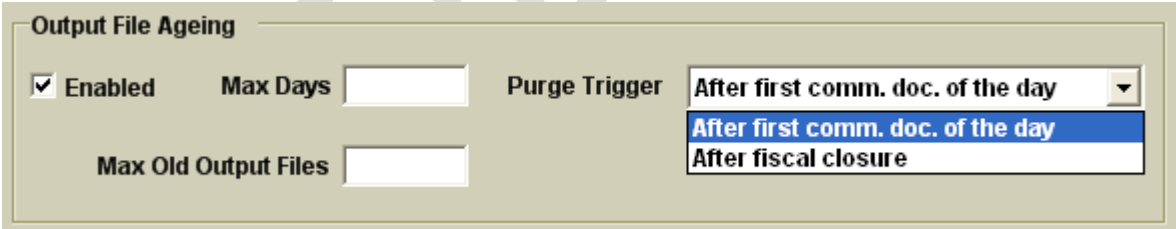
The deletion routine is activated in one of two ways:

1. After first commercial document of the day.
2. After fiscal closure.

The routine begins by deleting files deemed old by virtue of the "Max Days" setting. During this sequence, the number of output files is recalculated. After the sequence has finished, EpsonFpMate compares the number of remaining files with the "Max Old Output Files" setting. If the number of files exceeds the threshold, it begins deleting them (in age order starting from the oldest file).

The "After first comm. doc. of the day" option tells EpsonFpMate to perform ageing after having emitted commercial document number 1 of the day.

The "After fiscal closure" option tells EpsonFpMate to perform ageing after processing the printZReport, printZTotReport or printXZReport commands in a printerFiscalReport input file or by clicking the "Daily Closure" or "Daily Closure (Financial Report)" buttons on the EpsonFpMate control panel.



Output File Ageing

☒ **Enabled** **Max Days** **Purge Trigger** After first comm. doc. of the day ▼

Max Old Output Files After first comm. doc. of the day
After fiscal closure

5.7 Log Options

Up to four types of log can be enabled:

- Input Log – Keeps a copy of the processed input files in a single file. The default name is "InputLogFpMate".
- Output Log – Keeps track of error conditions in a single file. The file is only written to if errors have been encountered. The default name is "OutputLogFpMate".

Z-Report Log – Logs printerFiscalReport file processing and "Daily Closure" or "Daily Closure (Financial Report)" button click events on the EpsonFpMate control panel. The default name is "RepZLog".

- EpsonFpMate Log – Detailed log that describes the principal EpsonFpMate functions such as file elaboration, printer connections and errors. The default name is "EpsonFpMateLog".

The file storage locations are individually configured under [path]. Network drive shares can also be specified.

Log Type	Enabled	Filename	Extension	[path]
Input Log	<input checked="" type="checkbox"/>	InputLogFpMate	.txt	Z:\Shared Folders\Work\EpsonFpMate\Log\InputL
Output Log	<input checked="" type="checkbox"/>	OutputLogFpMate	.txt	Z:\Shared Folders\Work\EpsonFpMate\Log\Output
Z-Report Log	<input checked="" type="checkbox"/>	RepZLog	.txt	Z:\Shared Folders\Work\EpsonFpMate\Log\Z-Rep
EpsonFpMate Log	<input checked="" type="checkbox"/>	EpsonFpMateLog	.txt	Z:\Shared Folders\Work\EpsonFpMate\Log\Epson

Two further settings are possible:

- **Max Log File Size** – Defines the maximum log file size allowable. Once the maximum size is reached, the file is renamed by inserting "-" followed by the timestamp and ".old" before the file extension. For example:

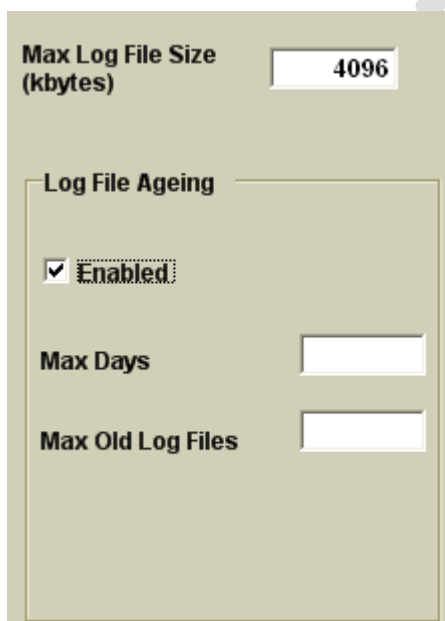
OutputLogFpMate.txt becomes OutputLogFpMate-20210104160301.old.txt

A new log file is then created.

- **Log File Ageing** – There are two thresholds that can be configured:
 1. **Max Days** – The maximum permissible age of the file after which it will be deemed ready for deletion.
 2. **Max Old Log Files** – The maximum number of log files allowable.

In both cases the value zero or blank deactivates the setting. Either one of the thresholds or both can be configured. Each of the four log file types are treated separately.

Whenever a log file exceeds the "Max Log File Size" threshold, EpsonFpMate initiates ageing prior to renaming and creating a new file. The routine begins by deleting files deemed old by virtue of the "Max Days" setting. During this sequence, the number of log files is recalculated. After the sequence has finished, EpsonFpMate compares the number of remaining files with the "Max Old Log Files" setting. If the number of files exceeds the threshold, it begins deleting them (in age order starting from the oldest file).



The screenshot shows a configuration window with a light beige background. At the top, there is a label "Max Log File Size (kbytes)" followed by a text input field containing the value "4096". Below this, there is a section titled "Log File Ageing" enclosed in a rounded rectangle. Inside this section, there is a checked checkbox labeled "Enabled". Below the checkbox, there are two more text input fields: "Max Days" and "Max Old Log Files", both of which are currently empty.

5.8 Other Logs

EpsonFpMate also writes the following log files irrespective of the EpsonFpMateConfig settings:

1. EpsonFpMateCrashLog.txt
2. EpsonFpMateSpvLog.txt (watchdog log file)

The path depends on the version of EpsonFpMate, the variant of Windows and the type of active user. Examples are:

C:\Program Files\EpsonFpMate
C:\Documents and Settings\All Users\Dati applicazioni\EPSON\EpsonFpMate
C:\ProgramData\EPSON\EpsonFpMate
C:\Users\<username>\AppData\Local\VirtualStore\ProgramData\EPSON\EpsonFpMate

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5.9 Printers

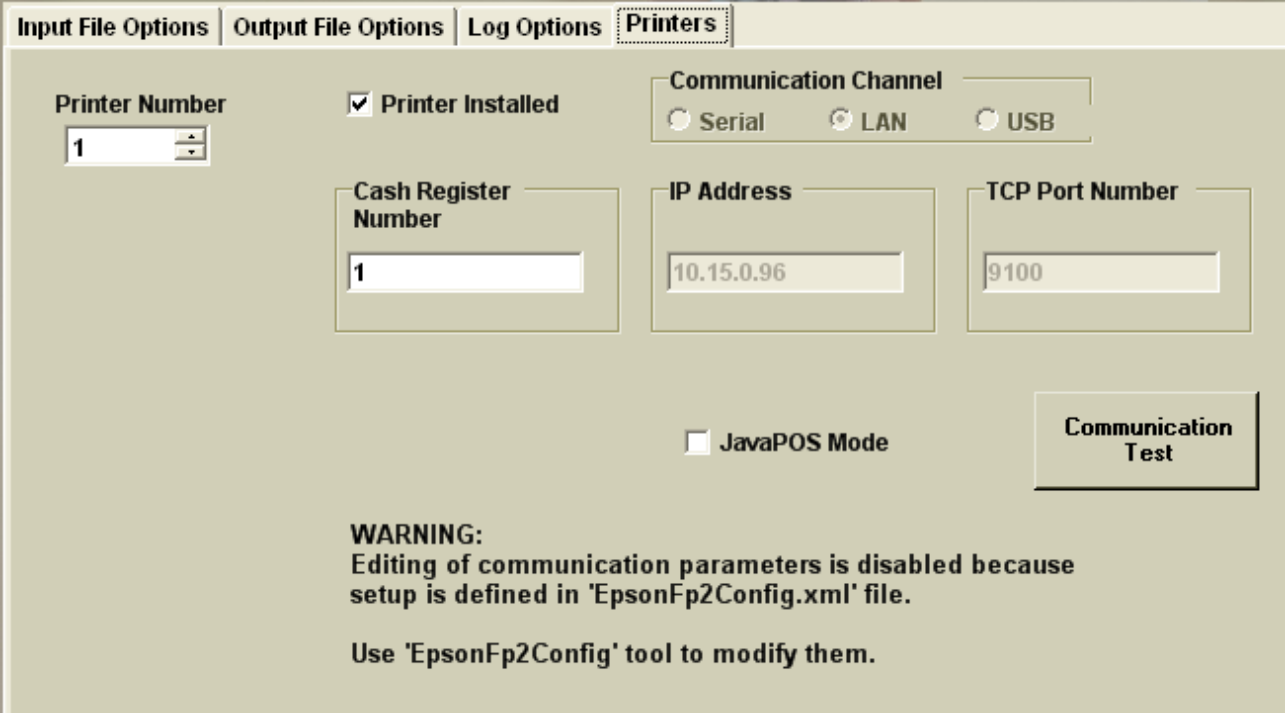
Printer communication options need only be set if more than one fiscal printer is connected to the PC and managed by EpsonFpMate otherwise the EpsonFp2Config utility can be used. EpsonFpMate can manage up to ten printers. For each installed printer, the following must be configured:

- Printer Installed (checkbox).
- Communication Channel (Serial RS-232, LAN TCP/IP or USB) and the related parameters.
- Cash Register Number (CashDesk ID / Numero Cassa): range 0 - 999. Optional.
- JavaPOS Mode (checkbox).

EpsonFpMate auto-detects the printer model.

- Printer Installed

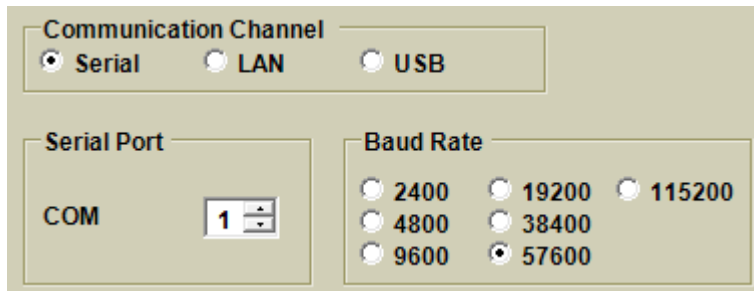
Up to ten printers can be managed. Note: If only one printer is connected to the PC and is managed by EpsonFpMate, the communication setup may be performed using the alternative EpsonFp2Config tool. In this case, the communication parameters cannot be modified with EpsonFpMateConfig and are greyed out. In the example below, LAN communication settings were configured using the EpsonFp2Config tool:



The screenshot shows the 'Printers' tab in the EpsonFpMate configuration utility. It features a 'Printer Number' dropdown set to '1'. A 'Printer Installed' checkbox is checked. The 'Communication Channel' is set to 'LAN' (with 'Serial' and 'USB' as options). Below this, three fields are visible: 'Cash Register Number' (value: 1), 'IP Address' (value: 10.15.0.96), and 'TCP Port Number' (value: 9100). A 'JavaPOS Mode' checkbox is unchecked. A 'Communication Test' button is located on the right. At the bottom, a warning message reads: 'WARNING: Editing of communication parameters is disabled because setup is defined in 'EpsonFp2Config.xml' file. Use 'EpsonFp2Config' tool to modify them.'

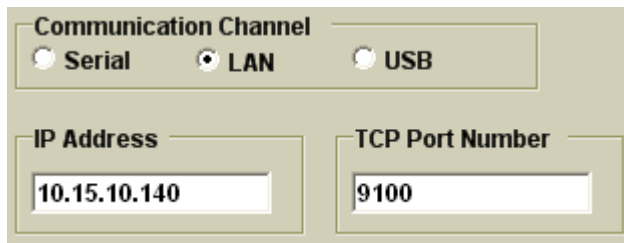
- Communication Channel

Choose one of the three communication channels. If Serial is selected, the COM port number and baud rate parameters must be configured:



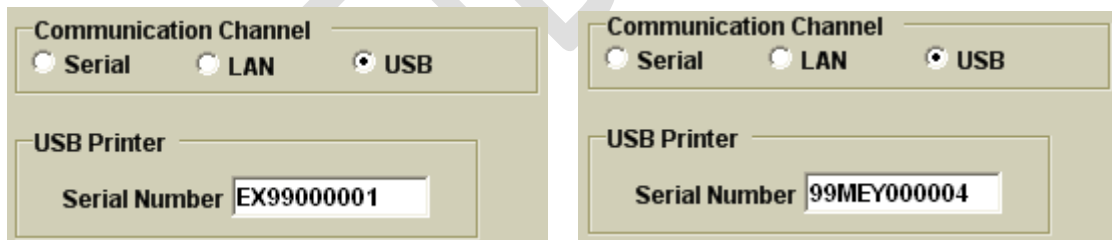
The screenshot shows the 'Communication Channel' configuration window. The 'Serial' radio button is selected. Below it, the 'Serial Port' is set to 'COM 1' and the 'Baud Rate' is set to '57600'.

If LAN is selected, the TCP/IP address and port number (default 9100) must be configured. EpsonFpMate can also be used over wireless connections or RNDIS (TCP/IP over USB) still selecting the LAN radio button.



The screenshot shows the 'Communication Channel' configuration window. The 'LAN' radio button is selected. Below it, the 'IP Address' is set to '10.15.10.140' and the 'TCP Port Number' is set to '9100'.

In USB mode, the fiscal serial number must be configured as it is the only way to distinguish two or more USB connected fiscal printers:



The image shows two side-by-side screenshots of the 'Communication Channel' configuration window. Both have the 'USB' radio button selected. The left window shows the 'USB Printer' section with the 'Serial Number' set to 'EX99000001'. The right window shows the 'USB Printer' section with the 'Serial Number' set to '99MEY000004'.

If an MF style serial number is configured and a similar RT serial number is found or vice-versa during the communication test, EpsonFpMateConfig will ask whether to accept it. The EpsonFpMate process handles both serial number styles. Therefore, if an MF printer switches to RT mode, EpsonFpMate will continue to operate. If an RT printer switches to MF mode, EpsonFpMate will continue to operate and will ignore the RT device type identifier.

- Cash Register Number (Optional)

The cash register number corresponds with the NUMERO CASSA line programmed with SET 15/11. A zero value deactivates printing of the NUMERO CASSA line. Accepted values range from 1 to 999.



- JavaPOS Mode

If selected, EpsonFpMate activates JavaPOS mode on the printer (SET 14/29 flag). In this condition, the printer requires the separate "closeFiscalReceipt / endFiscalReceipt" closure command after payment has been completed according to the UPOS international standard. Furthermore, EpsonFpMate will automatically send the closure command when necessary such as when voiding or closing commercial documents from the control panel. If the D-Type input file format is activated, this setting has no effect as the JavaPOS mode is forced off.



- Communication Test Button

EpsonFpMate will open a connection to the printer and first check if it is an RT printer or not. Then it reads the fiscal serial number which is then displayed to allow for confirmation. If the connection is via the USB port and EpsonFp2Config was not used to configure the communication parameters, the retrieved serial number will be compared with the one programmed in this tool. If an MF style serial number is configured and a similar RT serial number is found or vice-versa, EpsonFpMateConfig requests a confirmation from the operator. If none match, a list of retrieved fiscal serial numbers is displayed.



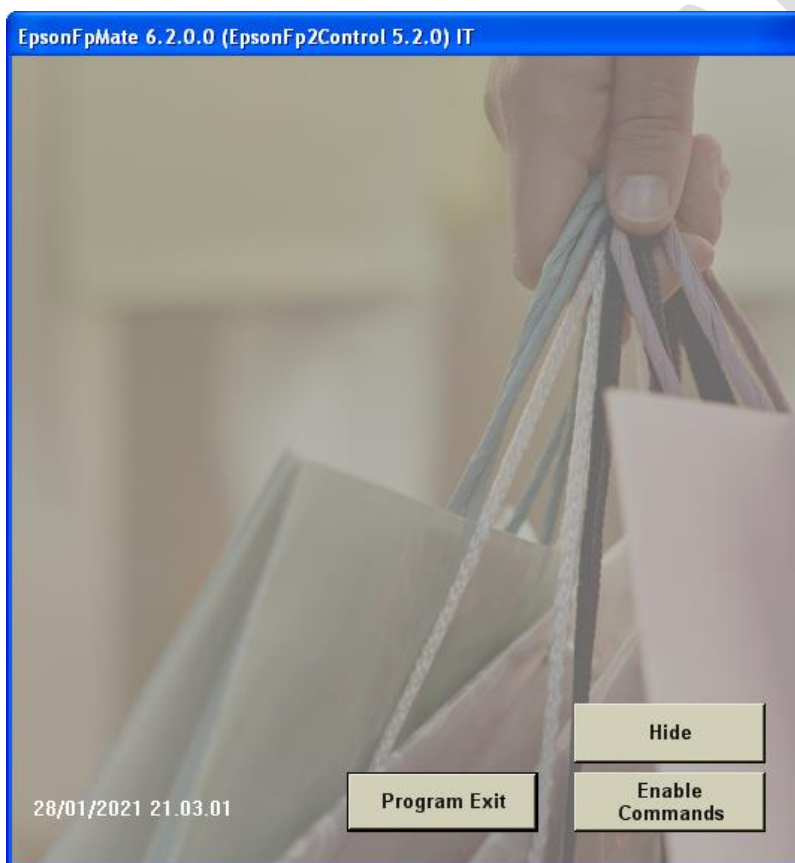
6 EpsonFpMate in Free Running Mode

6.1 System Tray Icon and Application Window

Once the system has been configured (using EpsonFpMateConfig) the EpsonFpMate application can be started. Its icon is a bridge and it remains visible in the system tray.



Input files are processed. If a connection problem occurs and the operator clicks the Cancel button, EpsonFpMate searches the input directory for further files for the specific printer only, cancelling them without processing them. Any files destined for other printers are retained and processed normally. It scans the input directory in a 125mS polling cycle. If any input files are found, it processes them sequentially (in no specific order). Depending on the settings, it can generate output and/or log files. By left or right clicking on the system tray icon, the application window becomes visible:



If the Exit button has been disabled, the bottom part of the form will change accordingly:



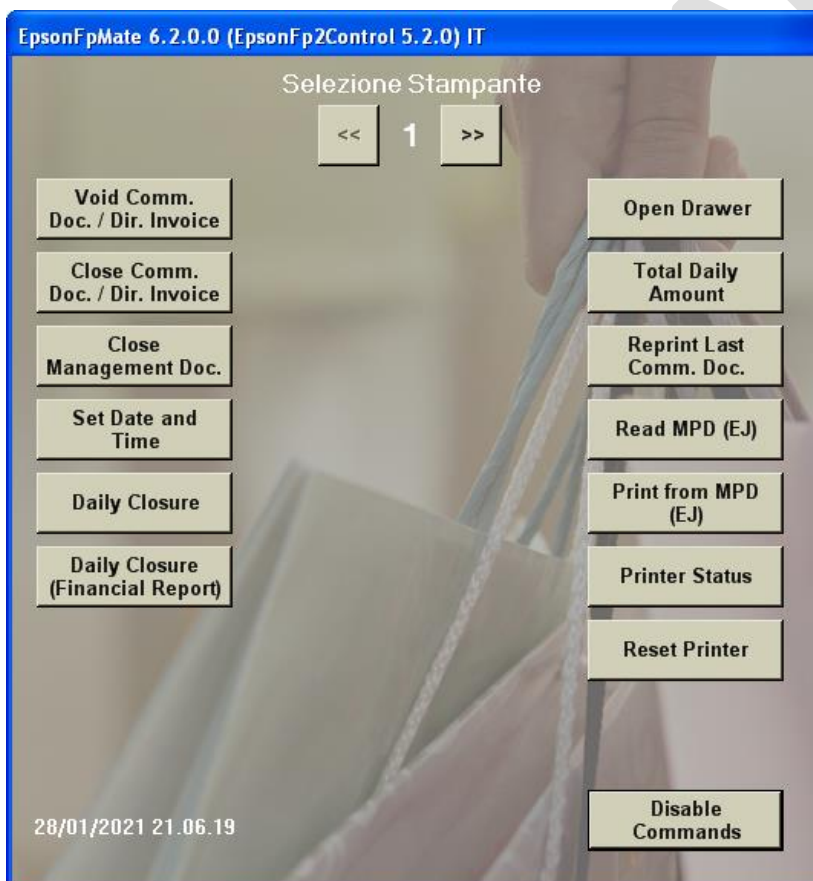
In this case "Alt F4" can be used to close the program.

The application window can be hidden (minimised) or the program itself can be closed using the appropriate buttons (Hide and Program Exit respectively).

6.2 EpsonFpMate Control Panel

The control panel can be used to perform local management functions such as a fiscal daily closure. It appears after clicking the "Enable Commands" button. If one or more commands have been disabled in EpsonFpMateConfig, the related buttons will not be visible.

If all buttons are enabled, the form will appear as follows:



Selezione Stampante (select printer) is only displayed if more than one printer is configured in EpsonFpMateConfig. Commands can be sent to the printer in order to:

- Read the following:
 - Printer status (including RT status)
 - MPD (Electronic Journal) content
 - Current fiscal daily total amount

- Print the following:
 - Z reports (daily fiscal closures)
 - A financial X-01 report followed by a Z report
 - MPD (Electronic Journal) content
 - Reprint the last emitted commercial document by using content from the MPD (Electronic Journal). Exact duplicates are prohibited by law so a management document is therefore issued that incorporates all the details of the last commercial document.
- Program the printer date and time (using the computer's system time)
- Close an open commercial document or direct invoice
- Close an open management document
- Void an open commercial document or direct invoice
- Open the cash drawer
- Reset the printer

The Electronic Journal content can be read or printed either by date or by number. Invoices are included.

The image displays two side-by-side screenshots of the 'MPD (EJ - Electronic Journal)' software interface. Both windows have a blue title bar and a grey background. The left window shows the 'Access mode selection' section with two radio buttons: 'Start and end dates' (selected) and 'Start and end numbers'. Below this, there are two date pickers for 'Start date' and 'End date', both showing '28/01/2021'. At the bottom are 'Start' and 'Exit' buttons. The right window shows the same interface but with 'Start and end numbers' selected. It includes a 'Start date' picker showing '28/01/2021' and two numeric input fields for 'Start Nr.' and 'End Nr.', both containing the value '1'. It also has 'Start' and 'Exit' buttons at the bottom.

EpsonFpMate will automatically warn if the printer is not logged in suggesting to login using EpsonFpWizard or SET 39 via the printer attached keyboard.

Read content can be saved as a text file:

MPD (EJ) data reading
From 28/01/2021 to 28/01/2021

TOTALE COMPLESSIVO	0,08
di cui IVA	0,01
Pagamento elettronico	0,08
Importo pagato	0,08

28-01-2021 19:10
DOCUMENTO N. 0099-0018
99IEB000202
DETTAGLIO FORME di PAGAMENTO
BANCOMAT 0,08
ID Acquirer: 45678901234
STAN: 567890
PAN 9ICCC0
NUMERO CASSA 1

MPD (EJ) data reading complete

Suspend Stop Save Close MPD (EJ)

6.3 Windows Scheduled Start on Reboot

EpsonFpMate can be automatically launched whenever the PC is rebooted. EpsonFpMate does not need to be configured any differently. When setting this up in your operating system, please note the following considerations:

- The working directory (path) must be set in the windows parameters otherwise EpsonFpMate will not find the watchdog executable file (EpsonFpMateSpv.exe) and will consequently abort. A typical path is C:\Programmi (x86)\EpsonFpMate.
- Whenever the scheduler launches multiple processes, EpsonFpMate should be the last one in the sequence.

7 EpsonFpMate in Single Shot Mode

In "Single Shot" mode, EpsonFpMate is launched by a command line string that has the file to be processed as an argument plus an optional check file argument separated by pipe ("|"). In addition, an alternative Settings.xml file can be indicated. After having processed the line, EpsonFpMate closes automatically. If file arguments are omitted, EpsonFpMate asks the operator if to open the control panel and switch to Free Running mode.

Command line examples:

```
C:\Programmi (x86)\EpsonFpMate\EpsonFpMate.exe C:\EpsonFpMate\Input\ScoDocComm.txt
```

```
C:\Programmi (x86)\EpsonFpMate\EpsonFpMate.exe C:\Epson\Input\ScoDocComm.txt|C:\Epson\Input\ScoDocComm.on
```

```
C:\Programmi (x86)\EpsonFpMate\EpsonFpMate.exe C:\Epson\Settings.xml|C:\Epson\Input\ScoDocComm.txt
```

```
C:\Programmi (x86)\EpsonFpMate\EpsonFpMate.exe C:\Epsn\Settings.xml|C:\Epsn\In\ScoDC.txt|C:\Epsn\In\ScoDC.on
```

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8 Connectivity

Whenever EpsonFpMate is launched in free running mode it automatically configures the following parameters for each printer:

- Fixed:
 - ACK SET 14/27 – Set to 0 (no)
 - SET 14/11 – Set to 1 (paper low on request)
- Per printer according to EpsonFpMateConfig:
 - Cash Register Number – SET 15/11
 - JavaPOS Mode – SET 14/29

It also checks the following:

- Printer status and printer RT status
- Fiscal printer serial number
- Printer model
- MPD (EJ) status
- Printer clock

Single printer configured in EpsonFp2Config

When EpsonFpMate is launched it connects to the printer, performs the tasks described above and remains connected. When the program closes it simply closes the open connection without sending any commands to the printer.

Single or multiple printers configured in EpsonFpMateConfig

Only one connection can be open at any given time. When EpsonFpMate is launched it connects to the printer, performs the tasks described above and disconnects. When multiple printers are configured, once launched EpsonFpMate connects and disconnects to each one in turn (performing the tasks described above) starting with Printer 1. If the control panel is opened, the currently selected printer status is checked whenever Enable Commands button is clicked. If a connection is not open, EpsonFpMate opens one. If the control panel is hidden, the current connection remains open. When an input file is found and a connection is not open to the specified printer, EpsonFpMate first closes any connection to another printer, opens one to the one specified in the input file, processes the file and leaves the connection open in case further files arrive for this printer. When the program closes it simply closes any current open connection without sending any commands to the printer.

9 Input File Setup (EpsonFpMate Format)

9.1 Input File Types

All command names and attributes are case insensitive.

EpsonFpMate can handle two different file formats:

- XML
- TXT

When TXT EpsonFpMate format files are used, a user defined separator (delimiter) character is used to differentiate the fields inside each record.

The input file structure must contain three sections:

- Input file type identifier
- Printer number (only necessary if more than one printer is being managed by EpsonFpMate)
- File body with commands and fields

The # and _ prefixes can be used to comment out a TXT line. The _ prefix can be used to comment out an XML tag.

9.2 Input File Type Identifiers

The first part of the file contains the header and it identifies the file type.

Type Identifier Keyword	Input File Type(s)
printerFiscalReceipt	Commercial document and direct invoice emission
printerFiscalReport	Financial and daily closure reports (X and Z reports)
printerNonFiscal	Management document emission
printerCommand	Maintenance For example, a printer reset or an MPD (EJ) content request
printerFiscalDocument	Invoice based on the last commercial document
printerVoidReceipt	Void commercial document or direct invoice *
applicationExit	EpsonFpMate program closure command *

* These types of file have no body.

In XML mode the root node is set to the desired keyword.

Input File Specification				
Commercial Document or Direct Invoice	Management Document	Daily Closure	Maintenance	Invoices Based on Last Commercial Document
printerFiscalReceipt	printerNonFiscal	printerFiscalReport	printerCommand	printerFiscalDocument

Message to customer display (displayText) and Printer beep request (soundBuzzer)

Direct activation of EpsonFp2.ocx method (directIO)

Setup and reading of EpsonFp2.ocx properties (printSetProperty / printReadProperty)

beginFiscalReceipt	beginNonFiscal	printXReport	resetPrinter	printFiscalDocument
printRecItem	printNormal	printZTotReport / printXZReport	queryEjContent / queryContent	printRecMessage
printRecRefund	printRecMessage	printZReport	getDate	getDate
printRecVoidItem / printRecItemVoid	printBarCode / printQRCode		queryEjContentByNumbers	openDrawer
printRecItemAdjustment	printGraphicCoupon		queryPrinterStatus	
printRecSubtotalAdjustment	endNonFiscal		openDrawer	
printRecBusinessTaxCode / printRecBusinessTaxId	printDuplicateReceipt			
printRecPersonalTaxCode / printRecPersonalTaxId	beginTraining			
printRecLotteryCode / printRecLotteryId	endTraining			
printRecSubtotal	openDrawer			
printRecMessage				
printBarCode / printQRCode				
printGraphicCoupon				
printRecTotal				
printRecVoid / printerVoidReceipt				
openDrawer				
closeFiscalReceipt / endFiscalReceipt				

Input File Specification (files without body)

Void Receipt Command	EpsonFpMate close command
printerVoidReceipt	applicationExit

9.3 Destination Printer Selection

The second record in the input file indicates the specific desired printer. It is optional but must be used if more than one printer is configured.

- Txt Mode:

Printer[Field Separator][Number] e.g.: Printer|3

This example denotes printer number 3 and assumes the field separator character (delimiter) is pipe.

- Xml Mode
<Printer Num="3" />

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9.4 File Bodies

The content of the body depends on the file type to be processed – commercial document, report etc. The following text examples all assume that the separator used is pipe.

9.4.1 Records Managed Regardless of the File Type

Command	Description
displayText	Customer display messages
directIO	Direct activation of EpsonFp2 OCX method
printSetProperty	Setup of EpsonFp2 OCX properties
printReadProperty	Reading of EpsonFp2 OCX properties
soundBuzzer	Sound internal buzzer

9.4.1.1 Customer Display Messages

The displayText command sends text messages to the customer display. You cannot insert carriage returns or line feeds so use spaces to pad out line 1 and begin line 2. Both lines are 20 characters long.

- Txt Format
displayText|nOpe|Display Text Message
- Xml Format
<displayText Ope="nOpe" Text="Display Text Message" />

Ope has operator alias.
Text has data alias.

Where:

- **displayText** is the command.
- **nOpe** is the operator ID (range 1 - 12).
- **Display Text Message** indicates the text to display (maximum 40 characters).

9.4.1.2 Activation of EpsonFp2 OCX Method

OCX method calls enrich the functionality of EpsonFpMate. The first entry after directIO is the OCX method name. Subsequent method arguments are then included in the command line.

- **Txt Format**
directIO|Method|Data0|Data1|Data2| . . . |DataN
- **Xml Format**
<directIO OcxMethod="Method" Arg0="Data0" Arg1="Data1" Arg2="Data2" ... ArgN="DataN" />

Where:

- **directIO** is the command.
- **Method** is name of the EpsonFp2 OCX method to be used (please refer to the list of methods in the EpsonFp2 development guide and the EpsonFpSuite release notes).
- **DataX** represents the Xth parameter / argument to be passed to the method. The parameter sequence order must be the same as the OCX method's argument order as indicated in the related EpsonFp2 development guide. The number, the type, the format and the meaning of the arguments depend upon the method called.

Note: Square brackets [] in methods in the EpsonFp2 development guide signifies optional parameters. They can be all present, partially present or missing in the list of parameters.

9.4.1.3 Setup of EpsonFp2 OCX Properties

printSetProperty sets one EpsonFp2.ocx property. A common usage is to set personalised timeouts just before a command.

- **Txt Format**
printSetProperty|Property|Value
- **Xml Format**
<printSetProperty OcxProperty="Property" SetUpValue="Value" />

Where:

- **printSetProperty** is the command.
- **Property** is the name of the desired EpsonFp2 OCX property to be set.
- **Value** is the value to be assigned to the selected property.

9.4.1.4 Reading of EpsonFp2 OCX Properties

printReadProperty reads the current value of the selected EpsonFp2 OCX property.

- Txt Format
printReadProperty|Property
- Xml Format
<printReadProperty OcxProperty="Property" />

Where:

- **printReadProperty** is the command.
- **Property** is the name of the EpsonFp2 OCX property to be read.

9.4.1.5 Sound Buzzer

Sounds the internal printer buzzer.

- Txt Format
SoundBuzzer|nOpe|nCyles|bLength|bFrequency
- Xml Format
<SoundBuzzer Ope="nOpe" BeepCycles="nCycles" BeepLength="bLength"
BeepFrequency="bFrequency" />

Ope has operator alias.

Where:

- **SoundBuzzer** is the command.
- **nOpe** is the operator ID (range 1 - 12).
- **nCycles** is the number of desired "beeps" (range 0 - 99. 0=continuous).
- **bLength** is the pulse length in tens of milliseconds (range 1 - 999).
- **bFrequency** is the beep frequency in Hz (range 0 - 9999).

9.4.1.6 Open Cash Drawer (Except for printerFiscalReport Files)

openDrawer opens the cash drawer. There are no parameters.

- Txt Format
openDrawer|nOpe
- Xml Format
<openDrawer Ope="nOpe" />

Ope has operator alias.

Where:

- **openDrawer** is the command.
- **nOpe** is the operator ID (range 1 - 12).

9.4.2 Commercial Document File Body

In this case, the body consists of one or more records of different types. The structure is also relevant for direct type invoices:

Command	Description
printRecItem	Sale. Also relevant with commercial refund and void documents whenever the associated Ndc flag is equal to zero (SET 14/58 and SET 14/59).
printRecRefund	Goods return or cancel. Only relevant with commercial refund and void documents whenever the associated Ndc flag is equal to one (SET 14/58 and SET 14/59).
printRecVoidItem printRecItemVoid	Cancel a previous sale (storno)
printRecItemAdjustment	Department discount or surcharge All used with modifiers: - Previous deposit deduction (acconto) - Free of charge deduction (omaggio) - Single use voucher (buono monouso)
printRecSubtotalAdjustment	Subtotal discount or surcharge
printRecSubtotal	Prints and/or display open document or invoice subtotal
printRecMessage	Additional free text row or description
printBarCode	Print barcode
printQRCode	Print QR code
printGraphicCoupon	Print graphic coupon
printRecTotal	Payment
openDrawer	Open the cash drawer
printRecVoid	Void the open commercial document or direct invoice
beginFiscalReceipt	Open a commercial document
closeFiscalReceipt / endFiscalReceipt	Close a commercial document (JavaPOS mode only)

Note: Each commercial document must comply with the following conditions:

- It must include at least one transaction row
- The total document amount cannot be negative
- The payment must be completed

A commercial document is automatically opened if the printer receives a sale command whilst in the STATO REGISTRATION condition meaning that beginFiscalReceipt can be omitted. If JavaPOS mode is deactivated, receiving enough payment(s) to cover the total will close it. In this case, printRecTotal must be the last line. Multiple PrintRecTotal lines can be used if for example a customer pays partly by card and partly by cash (assuming the total due hasn't already been covered). In JavaPOS mode closeFiscalReceipt / endFiscalReceipt must be used after payment. Even though footer texts and barcodes appear below the total line for example, the footer and barcode command lines must be placed before "printRecTotal". The only exception is the displayText command. This can be placed after when a message is to be sent to the customer display.

Direct invoices can also be emitted. See examples at the end of this document.

9.4.2.1 Sale Items

`printRecItem` prints a sale item. It can also be used with commercial refund and void documents as mentioned above. If it is the first item and `beginFiscalReceipt` is not used, a new commercial document is automatically opened.

- **Txt Format**
`printRecItem|nOpe|SaleDescription|xx,xxx|yy,yy|nDep|Just`
- **Xml Format**
`<printRecItem Ope="nOpe" Text="SaleDescription" Qty="xx,xxx" UnitCost="yyy,yy" Dep="nDep" Just="Just" />`

Ope has operator alias.

Text has description alias.

Qty has quantity alias.

UnitCost has unitPrice alias.

Dep has department alias.

Just has justification alias.

Where:

- **printRecItem** is the command.
- **nOpe** is the operator ID (range 1 - 12).
- **SaleDescription** is the description composed of a maximum of 38 characters.
- **xx,xxx** represents the quantity (range 0,001 - 9999,999). This cannot be zero.
- **yy,yy** represents the unit price (range 0,00 - 9999999,99).
- **nDep** represents the department number (range 1 - 99).
- **Just** is used to set the description justification. The maximum number of characters that can appear on the display is 20. If Just = 1, the first 20 characters appear; whereas if Just = 2, the last 20 characters.

9.4.2.2 Customer Returns and Voids (Resi ed Annulli)

printRecRefund should be used with commercial refund and void documents as mentioned above. If printRecRefund is received in an open commercial sale document, it is automatically converted to a cancel sale (storno) transaction. This is because sales and refunds can no longer exist together in the same commercial document.

- Txt Format
printRecRefund|nOpe|RefundVoidDescription|xx,xxx|yy,yy|nDep|Just
- Xml Format
<printRecRefund Ope="nOpe" Text="RefundVoidDescription" Qty="xx,xxx"
UnitCost="yyy,yy" Dep="nDep" Just="Just" />

Ope has operator alias.

Text has description alias.

Qty has quantity alias.

UnitCost has unitPrice alias.

Dep has department alias.

Just has justification alias.

Where:

- **printRecRefund** is the command.
- **nOpe** is the operator ID (range 1 - 12).
- **RefundVoidDescription** is a description composed of a maximum of 38 characters.
- **xx,xxx** represents the quantity (range 0,001 - 9999,999). This cannot be zero.
- **yy,yy** represents the unit price (range 0,00 - 9999999,99).
- **nDep** represents the department number (range 1 - 99).
- **Just** is used to set the description justification. The maximum number of characters that can appear on the display is 20. If Just = 1, the first 20 characters appear; whereas if Just = 2, the last 20 characters.

9.4.2.3 Cancel Sale (Storno)

printRecVoidItem or the alias printRecItemVoid is used to void one of the previous sale operations.

- Txt Format
printRecVoidItem|nOpe|VoidItemDescription|xx,xxx|yy,yy|nDep|Just
- Xml Format
<printRecVoidItem Ope="nOpe" Text="VoidItemDescription" Qty="xx,xxx"
UnitCost="yyy,yy" Dep="nDep" Just="Just" />

Ope has operator alias.

Text has description alias.

Qty has quantity alias.

UnitCost has unitPrice alias.

Dep has department alias.

Just has justification alias.

Where:

- **printRecVoidItem or printRecItemVoid** is the command.
- **nOpe** is the operator ID (range 1 - 12)
- **VoidItemDescription** is a description composed of a maximum of 38 characters.
- **xx,xxx** represents the quantity (range 0,001 - 9999,999). This cannot be zero.
- **yy,yy** represents the unit price (range 0,00 - 9999999,99).
- **nDep** represents the department number (range 1 - 99).
- **Just** is used to set the description justification. The maximum number of characters that can appear on the display is 20. If Just = 1, the first 20 characters appear; whereas if Just = 2, the last 20 characters.

9.4.2.4 Item or Department Specific Discount/Surcharge or Modifier

A discount or surcharge is applied to either the previous operation or to a specific department. If based on the last transaction and the latter was a correction (storno), the printer returns Error 11. Can also be used with modifiers. In this case, the department must be specified.

- **Txt Format**
`printRecItemAdjustment|nOpe|DiscSurModDescription|DiscUp|yyy,yy|nDep|Just`
- **Xml Format**
`<printRecItemAdjustment Ope="nOpe" Text="DiscSurModDescription" Type="OpType" Amount="yyy,yy" Dep="nDep" Just="Just" />`

Ope has operator alias.

Text has description alias.

Type has adjustmentType alias.

Dep has department alias.

Just has justification alias.

Where:

- **printRecItemAdjustment** is the command.
- **nOpe** is the operator ID (range 1 - 12)
- **DiscSurModDescription** is a description of up to 38 characters.
- **OpType** selects one of seven different operation types:
 - 0 = Discount based on the last transaction.
 - 3 = Department specific discount.
 - 5 = Surcharge based on the last transaction.
 - 8 = Department specific surcharge.
 - 10 = Previous deposit deduction (acconto). Department specific.
 - 11 = Free of charge deduction (omaggio). Department specific.
 - 12 = Single use voucher (buono monouso). Department specific.
- **yyy,yy** represents the amount (range 0,01 - 9999999,99). This cannot be zero.
- **nDep** represents the department number (range 1 - 99).
- **Just** is used to set the description justification. The maximum number of characters that can appear on the display is 20. If Just = 1, the first 20 characters appear; whereas if Just = 2, the last 20 characters.

Notes:

1. A zero amount will throw Error 16 from the printer and the print-out will not complete.
2. In the case of discounts or modifiers, the minus sign must never be used – the printer automatically prints it.
3. If OpType = 0 or 5 – If the last transaction was a correction (storno), the printer throws Error 11 and the print-out will not complete.
4. nDep only has significance when OpType equals 3, 8, 10, 11 or 12. Furthermore, these types can be used as the first operation to automatically open a commercial document.

9.4.2.5 Discount/Surcharge on Subtotal

A discount or surcharge is applied to the subtotal.

- Txt Format
printRecSubtotalAdjustment|nOpe|DiscSurDescription|DiscUp|yyy,yy|NU|Just
- Xml Format
<printRecSubtotalAdjustment Ope="nOpe" Text="DiscSurDescription" Type="OpType"
Amount="yyy,yy" Dep="NU" Just="Just" />

Ope has operator alias.

Text has description alias.

Type has adjustmentType alias.

Dep has department alias.

Just has justification alias.

Where:

- **printRecSubtotalAdjustment** is the command.
- **nOpe** is the operator ID (range 1 - 12).
- **DiscSurDescription** is a description composed of a maximum of 38 characters.
- **OpType** selects between four different types of operation:
 - 1 = Discount on subtotal with subtotal printed out.
 - 2 = Discount on subtotal without subtotal printed out.
 - 6 = Surcharge on subtotal with subtotal printed out.
 - 7 = Surcharge on subtotal without subtotal printed out.
- **yyy,yy** represents the discount amount (range 0,01 - 99999999,99). This cannot be zero.
- **NU** represents an unused numeric field ignored by the printer.
- **Just** is used to set the description justification. The maximum number of characters that can appear on the display is 20. If Just = 1, the first 20 characters appear; whereas if Just = 2, the last 20 characters.

Notes:

1. A zero discount will throw Error 16 from the printer and the print-out will not complete.
2. In the case of discounts, the minus sign must never be used – the printer automatically prints it.
3. The eventual subtotal line is printed before the discount or surcharge.
4. If OpType is either 1 or 2 and the subtotal is zero or negative, the printer throws Error 17 and the print-out will not complete.

9.4.2.6 Business Tax Code (Partita IVA)

Pre-loads the business tax code (partita IVA) into the printer. It must be placed before the payment command. The command is `printRecBusinessTaxCode` or the alias `printRecBusinessTaxId`.

- Txt Format
`printRecBusinessTaxCode|nOpe|businessCode`
- Xml Format
`<printRecBusinessTaxCode Ope="nOpe" taxCode="businessCode" />`

Ope has operator alias.

taxCode has taxId and code aliases.

Where:

- **printRecBusinessTaxCode** or **printRecBusinessTaxId** is the command.
- **nOpe** is the operator ID (range 1 - 12).
- **businessCode** indicates the 11 digit numerical code without the IT prefix.

9.4.2.7 Personal Tax Code (Codice Fiscale)

Pre-loads the personal tax code (codice fiscale) into the printer. It must be placed before the payment command. The command is `printRecPersonalTaxCode` or the alias `printRecPersonalTaxId`.

- Txt Format
`printRecPersonalTaxCode|nOpe|personalCode`
- Xml Format
`<printRecPersonalTaxCode Ope="nOpe" taxCode="personalCode" />`

Ope has operator alias.

taxCode has taxId and code aliases.

Where:

- **printRecPersonalTaxCode** or **printRecPersonalTaxId** is the command.
- **nOpe** is the operator ID (range 1 - 12).
- **personalCode** indicates the 16 alphanumeric code.

9.4.2.8 Lottery Code (Codice Lotteria)

Pre-loads the lottery code (codice lotteria) into the printer. It must be placed before the payment command. The command is `printRecLotteryCode` or the alias `printRecLotteryId`.

- Txt Format
`printRecLotteryCode|nOpe|code`
- Xml Format
`<printRecLotteryCode Ope="nOpe" lotteryCode="personalCode" />`

Ope has operator alias.

lotteryCode has lotteryId and code aliases.

Where:

- **printRecLotteryCode** or **printRecLotteryId** is the command.
- **nOpe** is the operator ID (range 1 - 12).
- **code** indicates the variable length alphanumeric lottery code. Max 16 characters.

9.4.2.9 Print Subtotal

Prints or displays the subtotal or both.

- Txt Format
`printRecSubtotal|nOpe|prnOption`
- Xml Format
`<printRecSubtotal Ope="nOpe" Type="prnOption" />`

Ope has operator alias.

Type has option alias.

Where:

- **printRecSubtotal** is the command.
- **nOpe** is the operator ID (range 1 - 12).
- **prnOption** selects between three different types of operation:
 - 0 = Print and display
 - 1 = Print only
 - 2 = Display only

9.4.2.10 Additional Line / Customer Loyalty Programme Number / EFT-POS

Additional lines can be printed in four positions. Additional header commands must be placed before the open command or before the first transaction as they must be preloaded in the printer memory. Trailer and additional trailer commands must be placed before the payment command.

The Customer Loyalty Programme Number appears in the rec.json file.

- Txt Format

`printRecMessage|nOpe|Type|Num|Font|RowText`

- Xml Format

`<printRecMessage Ope="Nope" Type="Type" Index="Num" Font="Font" Text="RowText" />`

Ope has operator alias.

Text has message alias.

Type has messageType alias.

Where:

- **printRecMessage** is the command.
- **nOpe** is the operator ID (range 1 - 12).
- **Type** defines the row type:
 - 1 = Additional commercial document header.
 - 2 = Trailer line in commercial document.
 - 3 = Additional trailer / promo line in commercial document.
 - 4 = Additional description (in the body of a commercial document).
 - 7 = Customer loyalty programme number.
 - 8 = Instructs the printer to print out EFT-POS lines that would have been buffered after an electronic payment. They are printed after trailer type 2 lines.
- **Num** indicates the row number index:
 - Range 1 - 9 for additional header (type 1).
 - Range 1 - 99 for trailer and additional trailer (types 2 and 3).
 - Not applicable with types 4, 7 and 8.
- **Font** indicates the font to be used for the entire row:
 - 1 = Normal.
 - 2 = Bold.
 - 3 = Double height.
 - 4 = Bold double height.
 - Not applicable with type 4
(font is always 1 – normal due to fiscal law layout requirements).
 - Not applicable with types 7 and 8.
- **RowText** represents the text to be printed or loaded. The maximum length is 46 characters. For type 4, up to 38 characters are accepted (fiscal law layout requirements). Further characters are ignored.

N.B: Additional header command lines (type 1) must be placed before document opening (opened automatically by the first fiscal operation or by `beginFiscalReceipt`).

9.4.2.11 Bar Code

Bar codes are printed at the end of the commercial document. The command must be pre-loaded being positioned before printRecTotal. Only one barcode can be printed. Either a barcode or a QR code can be printed but not both.

- Txt Format
printBarCode|nOpe|Position|BcWidth|BcHeight|HriEnabling|HriFont|CodeType|BCText
- Xml Format
<printBarCode Ope="nOpe" Pos="Position" Width="BcWidth" Height="BcHeight"
Hri="HriEnabling" Font="HriFont" Tipo="CodeType" Text="BcText" />

Ope has operator alias.

Pos has position alias.

Hri has hriPosition alias.

Font has hriFont alias.

Tipo has codeType alias.

Text has code alias.

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Where:

- **printBarcode** is the command.
- **nOpe** is the operator ID (range 1 - 12).
- **Position** defines the starting position from the left margin (range 0 - 511). The special 900, 901 and 902 values can be used alternatively to indicate left, centred and right alignment respectively.
- **BcWidth** indicates the dot width of the individual bars (range 1 - 8)
- **BcHeight** indicates the height of the bar code measured in print dots (range 1 - 255)
- **HriEnabling** selects one of three ways to print the alphanumeric representation of the barcode or to disable it altogether. You can choose between the number or the name:
 - 0 / DISABLED
 - 1 / BELOW
 - 2 / ABOVE
 - 3 / TWICE (prints it above and below)
- **HriFont** indicates the font to be used for the HRI string. You can choose between the number or the name:
 - 0 / A / FontA
 - 1 / B / FontB
- **CodeType** indicates the bar code standard. You can choose between the code number or the name:
 - 65 / UPC-A or UPCA
 - 66 / UPC-E or UPCE
 - 67 / EAN-13 or EAN13 / JAN-13 / JAN13
 - 68 / EAN-8 or EAN8 / JAN-8 / JAN8
 - 69 / CODE-39 or CODE39
 - 70 / ITF
 - 71 / CODABAR or NW7
 - 72 / CODE-93 or CODE93
 - 73 / CODE-128 or CODE128
 - 74 / GS1-128 or GS1128
 - 75 / GS1-DATABAR-OMNIDIRECTIONAL or GS1DATABAROMNIDIRECTIONAL
 - 76 / GS1-DATABAR-TRUNCATED or GS1DATABARTRUNCATED
 - 77 / GS1-DATABAR-LIMITED or GS1DATABARLIMITED
 - 78 / GS1-DATABAR-EXPANDED or GS1DATABAREXPANDED
- **BcText** represents the bar code itself.

Notes:

- The special 900, 901 and 902 values indicate left, centred or right horizontal justification.
- The character set and the string length are defined by the standards related to each bar code system.
- The starting position, the string length and the bar code width must be defined according to the paper roll size. If there is not enough room, the barcode will not be printed (whitespace will be visible instead).
- According to the CODE128 standard, one of the following character sets must be specified:
 - To select CODE A, the first two characters of the RowText must be "{A"
 - To select CODE B, the first two characters of the RowText must be "{B"
 - To select CODE C, the first two characters of the RowText must be "{C"

When employing CODE128, note that these first two characters are not part of the bar code itself and are therefore not printed. They are present only for selecting the character set.

9.4.2.12 QR Code Printing

QR codes are printed at the end of the commercial document in the same manner as for barcodes (the command must be pre-loaded being positioned before printRecTotal). Only one QR code can be printed. Either a QR code or barcode can be printed but not both.

- **Txt Format**
`printBarCode|nOpe|Position|0|QRCodeSize|QRCodeDataType|ErrorCorrectionLevel|CodeType|QRCodeData`
- **Xml Format**
`<printQRCode Ope="nOpe" Pos="Position" Size="QRCodeSize" DataType="QRCodeDataType" ErrorCorrection="ErrorCorrectionLevel", Tipo="CodeType" Text="QRCodeData" />`
- **Alternative Xml Format using printBarCode**
`<printBarCode Ope="nOpe" Pos="Position" Height ="QRCodeSize" Hri="QRCodeDataType" Font="ErrorCorrectionLevel", Tipo="CodeType" Text="QRCodeData" />`

Ope has operator alias.

Pos has position alias.

Tipo has codeType alias.

Text has code alias.

Where:

- **printQRCode** is the command. **printBarCode** is also accepted for backwards compatibility.
- **nOpe** is the operator ID (range 1 - 12).
- **Position** defines the horizontal alignment 0, 1 and 2 values can be used to indicate left, centred and right respectively.
- **QRCodeSize** indicates the QR code size (range 1 - 16)
- **QRCodeDataType** selects one of two representations:
 - BINARY
 - ALPHANUMERIC
- **ErrorCorrectionLevel** selects one of four levels:
 - LOW
 - MEDIUMLOW
 - MEDIUMHIGH
 - HIGH
- **CodeType** indicates the QR code standard. You can choose between the code number or the name:
 - 91 / QRCODE1
 - 92 / QRCODE2 (has better Smartphone compatibility)
- **QRCodeData** represents the QR code itself. If binary is chosen, a hexadecimal sequence must be used. For example, HELLO = 48454C4C4F. The letters A to F can also be lower case.

9.4.2.13 Graphic Coupon Printing

One graphic coupon can be printed at the end of the commercial document after the additional row, description or bar code / QR code. JavaPOS Mode must be off. The graphic file must be in the Epson format.

- Txt Format
printGraphicCoupon|nOpe|FileName
- Xml Format
<printGraphicCoupon Ope="nOpe" GraphicFile="FileName" />

Ope has operator alias.

Where:

- **printGraphicCoupon** is the command
- **nOpe** is the operator ID (range 1 - 12).
- **FileName** is either:
 - The name of the graphic file to be printed (if the file resides in the pre-configured "input" directory).
 - The complete path (including the drive letter and filename) if the file is located elsewhere.

9.4.2.14 Payment Section

One or more records can be defined but usually it is composed of one record; more than one means that the payment is composed of several partial payments. In this case care must be taken to correctly order the payments as the printer will not accept further payment commands if the total due has already been covered.

- **Txt Format**
`printRecTotal|nOpe|PaymentDescription|yyy,yy|Mode|Index|Just`
- **Xml Format**
`<printRecTotal Ope="nOpe" Text="PaymentDescription" Amount="yyy,yy" Type="Mode" Index="PayIndex" Just="Just" />`

Ope has operator alias.

Text has description alias.

Amount has payment alias.

Type has paymentType alias.

Just has justification alias.

Where:

- **printRecTotal** is the command.
- **nOpe** is the operator ID (range 1 - 12).
- **PaymentDescription** is a description composed of a maximum of 38 characters.
- **yyy,yy** represents the amount (range 0,00 - 9999999,999). A value of zero is interpreted as the outstanding amount to pay in that moment.
- **Mode** indicates the payment method:
 - 0 = Cash
 - 1 = Cheque
 - 2 = Credit/Credit Card
 - 3 = Single ticket
 - 4 = Multiple tickets
 - 5 = Not paid
 - 6 = Payment discount
- **PayIndex** is used with all payment methods except cheques. It selects the index – Cash (1-5), credit (0) credit card (1-10) or ticket (1-10). In the other cases, the significance is as follows:
 - 4 (multiple tickets) = Number of tickets.
 - 5 (not paid) = subtype as follows:
 - 0 = Goods and Services (Beni e Servizi).
 - 1 = Goods only (Beni).
 - 2 = Services only (Servizi).
 - 3 = Invoice based on commercial document.
 - 4 = RT invoice (TBD).
 - 5 = SSN (pharmacies only).
 - 6 (payment discount) = subtype as follows:
 - 0 = Generic.
 - 1 = Multi-use voucher (Buono multiuso).
- **Just** is used to set the description justification. The maximum number of characters that can appear on the display is 20. If Just = 1, the first 20 characters appear; whereas if Just = 2, the last 20 characters.

9.4.2.15 Void Commercial Document or Direct Invoice

`printRecVoid` or the alias `printerVoidReceipt` voids the current open commercial document or direct invoice. There are no parameters.

- Txt Format
`printRecVoid|nOpe`
- Xml Format
`<printRecVoid Ope="nOpe" />`

Ope has operator alias.

Where:

- **`printRecVoid` or `printerVoidReceipt`** is the command.
- **`nOpe`** is the operator ID (range 1 - 12).

9.4.2.16 Begin Commercial Document (Documento Commerciale)

beginFiscalReceipt should be used for correctness but can sometimes be omitted if for example the first transaction is a sale. It opens a new commercial document. The retail header lines are automatically printed along with any header logo and/or additional header lines. There are no parameters.

- Txt Format
beginFiscalReceipt|nOpe
- Xml Format
<beginFiscalReceipt Ope="nOpe" />

Ope has operator alias.

Where:

- **beginFiscalReceipt** is the command.
- **nOpe** is the operator ID (range 1 - 12).

9.4.2.17 Close Commercial Document or Direct Invoice

This command is only required if the JavaPOS Mode has been activated. This is because the document remains open after the payment has been completed (as per the UPOS international standard). This command is therefore required to close it.

- Txt Format
closeFiscalReceipt|nOpe or endFiscalReceipt|nOpe
- Xml Format
<closeFiscalReceipt Ope="nOpe" /> or
<endFiscalReceipt Ope="nOpe" />

Ope has operator alias.

Where:

- **closeFiscalReceipt / endFiscalReceipt** is the command.
- **nOpe** is the operator ID (range 1 - 12).

9.4.3 Prohibited Wordings in Free Text Lines

Certain wordings are prohibited in commercial documents as additional text or descriptions (printRecMessage command). The list is as follows:

- Totale
- Sconto
- Importo
- Contante

In addition, Totale is not permitted as a payment description (printRecTotal).

These words cannot be printed even if the characters are separated by non-alphabetic characters (e.g.: Cont-ant#e; s?c'o"n%t o,). They should not be present in any description text. EpsonFpMate does not perform any pre-processing operation on prohibited wordings. The fiscal printer will alter any message that attempts the printing of any of the above words on a commercial document. Neither the printer nor EpsonFpMate will generate any error. The way in which these words are modified is "hard coded" in the fiscal printer firmware. Examples:

- Totale becomes Total*
- Importo becomes Import*
- Sconto becomes Scont*
- Contante becomes Contant*

9.4.4 Commercial Refund Document (Documento di Reso)

Epson RT fiscal printers can print out commercial refund documents related to goods refund operations. It means for example that customers can be refunded the same amount that was paid when the item was originally bought without having to purchase new items to make the commercial document positive. The commands allowed depend on the SET 14/58 flag. In Ndc mode (1 / SI), the same commands as for obsolete credit notes are allowed and the same rules are followed. printRecRefund is used instead of printRecItem. In non-Ndc mode (0 / NO), the same commands as for commercial documents are allowed and the same rules are followed. printRecItem is used instead of printRecRefund. The file type remains printerFiscalReceipt. If the original document exists on the MPD (EJ), individual totals for each of the 20 tax groups present in the refund document cannot exceed the same totals in the original document.

9.4.4.1 Opening a Commercial Refund Document

To open a commercial refund document, a special type 4 "printRecMessage" command must be used that has to conform to one of the following four possible formats:

- Normal commercial document with RT fiscal serial number reference:
 - **REFUND zzzz nnnn ddmmyyyy 99\$%%ssssss**
- Point of Sale device receipt (POS):
 - **REFUND zzzz nnnn ddmmyyyy POS**
- Return of empty bottles etc (VR – vuoti a rendere):
 - **REFUND zzzz nnnn ddmmyyyy VR**
- Any other reason not covered by first three cases or fiscal receipt (ND – Non definito):
 - **REFUND zzzz nnnn ddmmyyyy ND**

The following format is deprecated:

- ~~**RESO MERCE N. zzzz nnnn del dd-mm-yyyy (deprecated)**~~

In the first case (normal commercial document), the original reference to which this document refers is expressed as follows:

- zzzz Z report number (must be four digits).
- nnnn Daily document sequence number (must be four digits).
- dd Day of the month (must be two digits).
- mm Month (must be two digits).
- yyyy Year (must be four digits).
- 99\$%%ssssss Fiscal serial number of the printer that issued the original document (\$ = RT device type, %% = Epson model ID and ssssss = six digits. E.g. 99MEY123456).

In the other cases, the original reference is expressed as follows:

- zzzz Z report or equivalent number if known otherwise 0000 (must be four digits).
- nnnn Daily document sequence number or equivalent number if known otherwise 0000 (must be four digits).
- dd Day of the month (must be two digits).
- mm Month (must be two digits).
- yyyy Year (must be four digits).
- POS VR or ND Fixed keyword. There must be a space between this and the date.

It is important to use capitals and separate the fields with blanks. beginFiscalReceipt is not required with commercial refund documents but can be still used for conformity if desired (placing it after printRecMessage). If the fiscal serial number is not the same as the printer that receives the request, an MPD (EJ) search is not performed. Currently there is no fiscal printer intercommunication function. The special printRecMessage command must be the first in the commercial refund document sequence (but after any type 1 "printRecMessage" optional additional header lines).

A commercial document that has already been fully refunded on the same RT printer with the same MPD (EJ) cannot subsequently be referred to. The printer will return an error. Any mismatched totals such as a refund value that exceeds the reference document sales or different VAT groups will generate errors at the payment phase.

9.4.4.2 Closing a Commercial Refund Document

In Ndc mode (flag SET 14/58 = 1 / SI), the same rules as for obsolete credit notes are followed except that partial payments are accepted. In non-Ndc mode (0 / NO), the same rules as for commercial documents are followed.

9.4.5 Commercial Void Document (Documento di Annullo)

Epson RT fiscal printers can print out commercial void documents. It means for example that an erroneously printed commercial document can be completely voided. With automatic printing, only printRecMessage is used. With manual printing, the commands allowed depend on the SET 14/59 flag. In Ndc mode (1 / SI), the same commands as for obsolete credit notes are allowed and the same rules are followed. printRecRefund is used instead of printRecItem. In non-Ndc mode (0 / NO), the same commands as for commercial documents are allowed and the same rules are followed. printRecItem is used instead of printRecRefund. The file type is printerFiscalReceipt with printRecMessage followed by the original transactions in case the document is not found. If the original document exists on the MPD (EJ), the opening command will automatically print and close the new void document. In this case, the subsequent lines in the file are ignored.

9.4.5.1 Opening a Commercial Void Document

To open a commercial void document, a special type 4 "printRecMessage" sub-element must be used that has to conform to one of the following four formats:

- **VOID zzzz nnnn ddmmyyyy 99\$%%ssssss**
- **VOID zzzz nnnn ddmmyyyy POS**
- **VOID zzzz nnnn ddmmyyyy VR**
- **VOID zzzz nnnn ddmmyyyy ND**

The following format is deprecated:

- ~~**ANNULLAMENTO N. zzzz nnnn del dd-mm-yyyy (deprecated)**~~

The parameter values and rules follow the same rules as for commercial refund documents discussed above.

9.4.5.2 Closing a Commercial Void Document

Only valid if automatic printing does not take place. In Ndc mode (flag SET 14/59 = 1 / SI), the same rules as for obsolete credit notes are followed except that partial payments are accepted. In non-Ndc mode (0 / NO), the same rules as for commercial documents are followed.

9.4.6 Management Document File Body

EpsonFpMate can print management documents (documenti gestionali). The keyword is "printerNonFiscal". The following commands are used:

Command	Description
beginNonFiscal	Open a management document
printNormal	Print text line
printRecMessage	Print additional header or EFT-POS lines
printBarCode	Print barcode
printQRCode	Print QR code
printGraphicCoupon	Print graphic coupon
endNonFiscal	Close management document
openDrawer	Open the cash drawer
printDuplicateReceipt	Print duplicate of last commercial document from MPD (EJ)
beginTraining	Enter Demo RT or training mode
endTraining	Exit Demo RT or training mode

9.4.6.1 Begin a Management Document (Documento Gestionale)

beginNonFiscal is used to open a management document:

- Txt Format
beginNonFiscal|nOpe
- Xml Format
<beginNonFiscal Ope="nOpe" />

Ope has operator alias.

Where:

- "nOpe" specifies the operator ID (range 1 - 12).

9.4.6.2 Print Bar Codes and QR Codes

The printing of bar codes and QR codes uses the same commands and rules as described in the commercial document section above. Differently from them, there is no limit to the number of barcodes and QR codes that can be printed in a single print-out.

9.4.6.3 Print Graphic Coupon

The printing of graphic coupons uses the same commands and rules as described in the commercial document section above. The only difference is that instead of only being possible to be printed once at the end, in this case it can be printed as many times as you like making the printing of several different graphic images possible.

9.4.6.4 Print Text Line

printNormal is used. Up to four fonts are supported. The format is as follows:

- Txt Format
printNormal|nOpe|Font|RowText
- Xml Format
<printNormal Ope="nOpe" Font="Font" Text="RowText" />

Ope has operator alias.
Text has data alias.

Where:

- "nOpe" specifies the operator ID (range 1 - 12).
- "Font" indicates one of four possible fonts:
 - 1 = Normal
 - 2 = Bold
 - 3 = Double
 - 4 = Double and bold
- "RowText" contains the text. Max 46 characters.

9.4.6.5 Additional Header or EFT-POS lines

Up to nine additional header lines can be printed. Additional header commands must be placed before the open command as they must be preloaded in the printer memory. A request to print EFT-POS lines should be positioned whilst the document is open.

- Txt Format

`printRecMessage|nOpe|Type|Num|Font|RowText`

- Xml Format

`<printRecMessage Ope="Nope" Type="Type" Index="Num" Font="Font" Text="RowText" />`

Ope has operator alias.

Type has messageType alias.

Text has message alias.

Where:

- **printRecMessage** is the command.
- **nOpe** is the operator ID (range 1 - 12).
- **Type** defines the row type:
 - 1 = Additional management document header.
 - 8 = Instructs the printer to print out EFT-POS lines that would have been buffered after an electronic payment.
- **Num** indicates the row number index:
 - Range 1 - 9 for additional header (type 1).
 - Not applicable with type 8 EFT-POS.
- **Font** indicates the font to be used for the entire row:
 - 1 = Normal.
 - 2 = Bold.
 - 3 = Double height.
 - 4 = Bold double height.
 - Not applicable with type 8 EFT-POS.
- **RowText** represents the text to be printed or loaded. The maximum length is 46 characters.

N.B: Additional header command lines (type 1) must be placed before opening the management document by `beginNonFiscal`).

9.4.6.6 Close Management Document

endNonFiscal closes a management document. The format is as follows:

- Txt Format
endNonFiscal|nOpe
- Xml Format
<endNonFiscal Ope="nOpe" />

Ope has operator alias.

Where:

- "nOpe" specifies the operator ID (range 1 - 12).

9.4.6.7 Reprint Last Commercial Document from MPD (EJ)

printDuplicateReceipt is used to print a copy of the last emitted commercial document. Since exact duplicates are prohibited by law, the reprinted content is in fact embedded in a management document (automatically handled by the fiscal printer).

- Txt Format
printDuplicateReceipt|nOpe
- Xml Format
<printDuplicateReceipt Ope="nOpe" />

Ope has operator alias.

Where:

- "nOpe" specifies the operator ID (range 1 - 12).

9.4.6.8 Enter Demo RT / Training Mode

To enter demo RT / training mode the fiscal printer must be in the logical day opened = false condition. A fiscal daily closure may therefore be necessary. Once in this mode, non-fiscal print outs are emitted. By law, all spaces are replaced with question marks (?) to render print outs unusable in a retail outlet. This cannot be overridden. Fiscal daily closures are inhibited whilst in training mode but in demo RT mode they are permitted. EpsonFpMate activates the particular mode according to the printer model connected.

- Txt Format
beginTraining
- Xml Format
<beginTraining />

9.4.6.9 Exit Demo RT / Training Mode

endTraining exits from demo RT / training mode.

- Txt Format
endTraining
- Xml Format
<endTraining />

9.4.7 Report File Body

Three possible report print outs are possible. The printer can perform a Z daily closure report, an X-01 report or both. In the case of an RT printer, tax authority XML transmission is automatically handled by the printer.

Command	Description
printZReport	Daily closure (Z Report)
printZTotReport printXZReport	Daily closure (Z Report) with additional X-01 daily financial report
printXReport	Daily X-01 financial report only

A Z report also sets the printer to the logical day opened = false condition.

9.4.7.1 Z Daily Closure Report

- Txt Format
printZReport|nOpe
- Xml Format
<printZReport Ope="nOpe" />

Ope has operator alias.

Where:

- "nOpe" specifies the operator ID (range 1 - 12).

9.4.7.2 Z Daily Closure with X-01 Financial Report

- Txt Format
printZTotReport|nOpe or printXZReport|nOpe
- Xml Format
<printZTotReport Ope="nOpe" /> or <printXZReport Ope="nOpe" />

Ope has operator alias.

Where:

- "nOpe" specifies the operator ID (range 1 - 12).

9.4.7.3 X-01 Financial Report Only

- Txt Format
printXReport|nOpe
- Xml Format
<printXReport Ope="nOpe" />

Ope has operator alias.

Where:

- "nOpe" specifies the operator ID (range 1 - 12).

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9.4.8 Command File Body

EpsonFpMate can for example extract administrative/diagnostic information from the printer. The "printerCommand" identifier is used.

The following list of commands can be used in printerCommand files:

Command	Description
queryEjContent queryContent	Collect MPD (EJ) content by range of dates and save in a file
queryEjContentByNumbers	Collect MPD (EJ) content by single date and range of document numbers and save in a file
queryPrinterStatus	Collect basic or RT status information from the printer and save in a file
openDrawer	Open cash drawer
getDate	Read date and time from the printer's real time clock
resetPrinter	Soft reset printer

9.4.8.1 Collect MPD (EJ) Content by Range of Dates and Save in a File

The file will appear in the output directory. If the file already exists it will be overwritten without any warning. Invoices are included. queryEjContent or the alias queryContent can be used.

- Txt Format
queryEjContent|nOpe|dataType|stD|stM|stY|endD|endM|endY|file
- Xml Format
<queryEjContent Ope="nOpe" Type="dataType" stDay="stD" stMonth="stM" stYear="stY" endDay="endD" endMonth="endM" endYear="endY" fileName="file" />

Ope has operator alias.

Where:

- "nOpe" specifies the operator ID (range 1 - 12).
- "dataType" indicates the data type filter (not currently supported).
- "stD" indicates the start day (1 - 31).
- "stM" indicates the start month (1 - 12).
- "stY" indicates the start year (YYYY).
- "endD" indicates the end day (1 - 31).
- "endM" indicates the end month (1 - 12).
- "endY" indicates the end year (YYYY).
- "file" indicates the desired filename. Paths are not supported.

9.4.8.2 Collect MPD (EJ) Content by Single Date and Range of Numbers and Save in a File

The file will appear in the output directory. If the file already exists it will be overwritten without any warning. Invoices are included. Setting both start and end numbers to 9999 together has a special significance equivalent to printDuplicateReceipt.

- Txt Format
queryEjContentByNumbers|nOpe|dataType|day|month|year|stN|endN|file
- Xml Format
<queryEjContentByNumbers Ope="nOpe" Type="dataType" stDay="day" stMonth="month" stYear="year" stNumber="stN" endNumber="endN" fileName="file" />

Ope has operator alias.

Where:

- "nOpe" specifies the operator ID (range 1 - 12).
- "dataType" indicates the data type filter (not currently supported).
- "day" indicates the day (1 - 31).
- "month" indicates the month (1 - 12).
- "year" indicates the year (YYYY).
- "stN" indicates the start number (1 - 9999).
- "endN" indicates the end number (1 - 9999).
- "file" indicates the desired filename. Paths are not supported.

9.4.8.3 Collect Basic or RT Status Information from the Printer and Save in a File

The file will be written in the output directory. If the file already exists it will be overwritten without any warning. An optional `statusType` field can be used to indicate whether to return the basic printer status or the RT status. If the new field is omitted, EpsonFpMate retains the original behaviour returning the basic printer status.

- Txt Format
queryPrinterStatus|nOpe|file or
queryPrinterStatus|nOpe|nStatusType|file or
- Xml Format
<queryPrinterStatus Ope="nOpe" fileName="file" /> or
<queryPrinterStatus Ope="nOpe" statusType="nStatusType" fileName="file" />

Ope has operator alias.

Where:

- "nOpe" specifies the operator ID (range 1 - 12).
- "nStatusType" indicates one of two modes:
0 = Basic printer status
1 = RT printer status
- "file" indicates the desired filename. Paths are not supported.

Example basic status file

```
Time=05/01/2021 17.27.28
EnvironmentOpSystem=Microsoft Windows NT 5.1.2600 Service Pack 3
EpsonFpMateVersion=6.2.0.0
EpsonFp2ControlVersion=5.2.0
PrinterModel=EPSON FP90III RT MODIFICATO
PrinterSN=EY99000015
FB_SwVer=10.02      (Fiscal firmware version)
FM_SwVer=4.3       (Fiscal memory version)
FM_State=0
PrinterDiag=00110  (Corresponds with five byte status in 1074 native command)
DgfeNum=1          (MPD (EJ) sequence number)
DgfePerc=0         (MPD (EJ) utilisation)
DgfeSize=4GB
```

Corresponds with 1074 native command described in the Communication Protocol document.

Example RT status file

Time=11/01/2021 19:37:50
EnvironmentOpSystem=Microsoft Windows NT 6.1.7601 Service Pack 1
EpsonFpMateVersion=6.2.0.0
EpsonFp2ControlVersion=5.2.0
PrinterModel=EPSON FP90III RT MODIFICATO
PrinterSN=99MEY000203
RTDeviceType=M
RTMainState=2
RTSubState=8
RTDayOpened=False
RTNonWorkingPeriod=True
RTNumberOfCurrentFiles=0
RTNumberOfOldFiles=0
RTNumberOfRejectedFiles=2
RTDateDeviceCertificateExpiration=09/12/2022
RTDateCAAECertificateExpiration=11/01/2038
RTFirmwareBuildNumber=241
RTSDFileSystemVersionNumber=2
RTTrainingDemoSimulationMode=0
RTFirmwareUpdateResult=0
RTNumberOfArchivedRejectedFiles=0
RTOutOfServiceCondition=0
RTRecoverCertificateCondition=0
Spare=000

Corresponds with 1138 native command described in the Communication Protocol document.

9.4.8.4 Read Date and Time from the Printer's Real Time Clock

The file will be written in the output directory.

- Txt Format
getDate
- Xml Format
<getDate />

The date and time read from the printer is written in the EpsonFpMate output file. Only hours and minutes can be read – seconds are always zero.

9.4.8.5 Printer Reset

Soft resets the printer carrying out the following operations:

- Places the printer in the "STATO REGISTRAZIONE" condition irrespective of the current state.
- Closes any open management document.
- Cancels any open commercial document.
- Cancels any open direct invoice printing two copies.
- Cancels any open box office ticket furthermore switching the printer into commercial document mode.
- Unblocks the keyboard previously blocked via the 1-055 command.
- Erases the keyboard buffer.
- Terminates an eventual SET 22 printer test condition.
- Txt Format
resetPrinter|nOpe
- Xml Format
<resetPrinter Ope="nOpe" />

Ope has operator alias.

Where:

- "nOpe" specifies the operator ID (range 1 - 12).

9.4.9 Fiscal Document File Body

9.4.9.1 Invoice Based on Last Commercial Document

Print invoice based on the last commercial document which can be printed by the fiscal printer itself or by a secondary printer connected to the fiscal printer serial port.

- Txt Format
`printFiscalDocument|nOpe|docType|docNumber`
- Xml Format
`<printFiscalDocument Ope="nOpe" Document="docType" Number="docNumber" />`

Ope has operator alias.

Document has documentType alias.

Number has documentNumber alias.

Where:

- **printFiscalDocument** is the command.
- **nOpe** is the operator ID (range 1 - 12).
- **docType** is fixed (Invoice).
- **docNumber** is the invoice number (range 1 - 99999). It is not the commercial document number which it is based on.

Additional header / invoice client lines

The `printRecMessage` command can be used to instruct the printer to print additional header lines and/or invoice client lines. Because they must be preloaded in the fiscal printer's memory, they must be placed before the `printFiscalDocument` command.

- **Txt Format**
`printRecMessage|nOpe|Type|Num|1|RowText`
- **Xml Format**
`<printRecMessage Ope="Nope" Type="mType" Index="Num" Font="1" Text="RowText" />`

Ope has operator alias.

Type has messageType alias.

Text has message alias.

Where:

- **printRecMessage** is the command.
- **nOpe** is the operator ID (range 1 - 12).
- **mType** defines the row type:
 - 5 = Additional header line
 - 6 = Invoice client line
- **Num** indicates the row number index:
 - Range 1 - 20 for additional header (type 5).
 - Range 1 - 5 for invoice client line (types 6).
- **Font** is always normal on the printer so can be 1.
- **RowText** represents the text to be loaded. The maximum length is 46 characters.

9.4.9.2 Important Notes

- Previous set-up of the fiscal printer is required (SET 25).
- Invoices based on a commercial document can only be printed after having first emitted a commercial document ("printerFiscalReceipt" file). The invoice contains the data present in the previous document with some exceptions.
- The invoice number must be zero or **greater** than the last invoice number printed (it doesn't have to be previous + 1, it could be previous + 5 for example).
- The EpsonFpMate output file does not include the amount. The value is set to zero. Totaliser readings can be performed before and after to calculate the amount.

10 Input File Setup (WinEcrCom File D-Type Format)

10.1 Description

EpsonFpMate can also process input files in the WinEcrCom D-type format. The JavaPOS mode must be deactivated. Commercial documents, direct invoices, management documents and daily closures can only be emitted. The set of supported commands is a subset of the complete WinEcrCom command set. Some WinEcrCom commands are accepted by EpsonFpMate but they have no effect in the fiscal printer. It is also possible to use some alias names for WinEcrCom commands.

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The following table lists all the WinEcrCom commands with the alias and notes related to them:

Command	Description	Alias	Notes
CANC	Clear button emulation	CLEAR	No effect at printer level.
CHIAVE	Key button emulation	KEY	No effect at printer level.
VEND	Sale, void and refund operations	SALE	Only department. PLU operations are not allowed.
SCONTO	Absolute value adjustment operations	DISC	Negative amounts are interpreted as a surcharge.
PERCA / PERCB	Percentage adjustment	None	Negative amounts are interpreted as a surcharge. The PERCB command is identical in all respects to the PERCA command. EpsonFpMate processes both commands (in precisely the same manner).
SUBT	Subtotal print and display	None	
PRMSG	Text to print	None	It is usually treated as an additional description in the body of the commercial document. If sent just before the payment, it is treated as a trailer line. In the case of invoices, up to two lines can be printed as a footer. Cannot be the first line in the file.
CHIU	Payment	CHIUS CLOSE	One of four possible payment types are accepted.
CORT	Additional trailer lines	None	Up to ten lines can be printed.
FATTURA	Direct invoice	None	First line of file. Up to five client lines can be optionally printed.
NOFIS	Management document	None	Free text lines and barcodes are supported.
report	Fiscal daily closure / Z report	AZZGIO	Two modes are possible (with or without X-01 financial report). The output filename is specified. AZZGIO can be used without arguments. In this case, the X-01 financial report is omitted.
VIS	Message for customer display	None	
ALLEG	Printing QR codes	None	The following parameters are hard-coded: <ul style="list-style-type: none"> • Medium-low error correction • Alphanumeric • Type 92
INP	Fiscal tax code (codice fiscale) Commercial refund documents Commercial void documents Lottery code	None	The INP command has many variations. Please see the INP Fields section and examples.

For details relating to the record structures, please refer to WinEcrCom documents.

10.2 Fields (if Expected)

10.2.1 VEND (Alias SALE) Fields

Department – REP, DEP or R

Unit price – PREZZO, PRICE or P

Quantity – QTY, QUANTITY or Q. If missing, quantity = 1

Description – DES

Refund – RESO or REFUND

Cancel sale – STORNO or VOID

10.2.2 SCONTO (Alias DISC) Fields

Amount – VALORE, VALUE or VAL. Negative amounts are interpreted as a surcharge.

Description – DESCR.

Mode – SUBTOT or absence of SUBTOT – If SUBTOT is present, the discount or surcharge is applied to the subtotal. If not present, it is applied with reference to the last sale.

10.2.3 PERCA / PERCB Fields

Percentage – ALIQ or RATE. Negative amounts are interpreted as a surcharge.

Description – DESCR.

Mode – SUBTOT or absence of SUBTOT – If SUBTOT is present, the discount or surcharge is applied to the subtotal. If not present, it is applied with reference to the last sale.

10.2.4 PRMSG Fields

Text – LINE, RIGA or DES

The specific printer number can be indicated using the following special wording placed at the beginning of the sequence:

- LINE='PRINTER|<printer number>'

10.2.5 CHIU (Aliases CHIUS and CLOSE) Fields

Type – TEND or T. The following values are accepted:

0 or >5 – Cash

1 – Cheque

2 or 4 – Ticket

3 or 5 – Credit card

Amount – IMPORTO, AMOUNT or IMP

Description – DES

10.2.6 CORT Fields

Line 1 – R1

...

...

Line 10 – R10

All "R" identifiers must be in the same single "CORT" line. Lines are printed after the fiscal serial number (additional trailer).

10.2.7 FATTURA (Direct Invoice) Fields

NOME1 = Client row 1

NOME2 = Client row 2

NOME3 = Client row 3

NOME4 = Client row 4

NOME5 = Client row 5

10.2.8 NOFIS Fields

Open – APRI or OPEN

Close – CHIUDI or CLOSE

Text – LINE, RIGA or DES

Barcode – BARCODE. Must be preceded by a text field of the code itself. See example below. The following hard-coded parameters are used:

- Left margin – 120 dots.
- Barcode width – 1 dot.
- HRI – Below barcode.
- HRI Font – Font B.
- Type – CODE 39.

10.2.9 report (Alias AZZGIO) Fields

num – Ignored

modo – Regards X-01 Financial report: 1=Do not include and 2=Include

file – Output filename

AZZGIO can be used without fields. It can also be used without the file argument.

10.2.10 VIS Fields

CLI1 – Text for display

10.2.11 ALLEG Fields (QR Code)

ON – Empty tag positioned before CHIU

RIGA, BARCODE, SCALA and ALLINEAMENTO – Positioned after CHIU where

- RIGA – QR code data
- BARCODE – Value ignored but keyword must be present
- SCALA – Size from 1 (small) to 16 (large)
- ALLINEAMENTO – Horizontal alignment (0=left, 1=centred and 2=right)

FINE – Empty tag positioned after RIGA

10.2.12 INP Fields (Codes and Refund / Void Documents)

TERM – The following values indicate the relative function:

- 49 – Fiscal tax code (codice fiscale)
- 61 – Ignored
- 145 – Depends on lengths of ALFA and NUM fields
- 167 – Lottery code (codice lotteria)
- 180 – Commercial refund document
- 188 – Commercial void document

ALFA – Depends on TERM value and/or ALFA length as follows:

- TERM=49 – ALFA=Fiscal tax code (codice fiscale)
- TERM=145 and ALFA length=8 – Reference document consisting of Z report number and document number without spaces or hyphens plus padded with zeroes if necessary
- TERM=145 and ALFA length=11 – Fiscal serial number
- TERM=167 – Lottery code (codice lotteria)

NUM – TERM must be 145 and NUM length must be six. Indicates reference document date

See examples for complete sequences.

10.3 Post Description Line with SCONTO, PERCA and PERCB Commands ("0D")

The above three commands can be appended with a post description line using "0D" as a delimiter and PRMSG as the second command. There must be exactly 65 characters before the "0D". For example:

PERCA ALIQ= 10.00 , SUBTOT **0D**PRMSG LINE='Test'

10.4 Commercial Refund Document

Since the VEND sale command is used, flag SET 14/58 must be set to non-NdC mode (0 / NO).

10.5 Commercial Void Documents

Since the VEND sale command is used, flag SET 14/59 must be set to non-NdC mode (0 / NO). EpsonFpMate automatically determines if the void is automatic or manual.

11 Output Files

When the **Output File** option is selected in EpsonFpMateConfig, EpsonFpMate generates an output file. The following details are reported:

- Date and time
- Printer number
- Cash Id number (Numero Cassa)
- Operation result (ok or ko)
- If Result = ok
 - Document number
 - Total receipt amount
 - The current Z report number and document number combination is included in a new ZDocNum attribute.
- If Result = ko
 - Error code
 - Short error description

The following table lists some keyword changes that were adopted:

Input file type	Keyword prior to version 5.6.0.31	Keyword from version 5.6.0.31 onwards	Comments
printerFiscalReceipt	ReceiptReport	FiscalReceiptReport	Missing Fiscal keyword portion
printerVoidReceipt			
printRecVoid			
printerCloseReceipt			
printerFiscalDocument	FiscalDocumentReport	FiscalDocumentReport	Unchanged
printerNonFiscal	XML file type: NonFiscalReceiptReport TXT file type: Not Managed (error)	NonFiscalReceiptReport	Corrected error with TXT file type
printerCommand	Command	CommandReport	Missing Report keyword portion
printerFiscalReport	ReportReport	FiscalDailyReport	Missing Fiscal keyword portion. Added Daily keyword portion for clarity

12 Sample Files

12.1 Text Delimited File Examples

12.1.1 Commercial Document

```
printerFiscalReceipt
Printer|2
printRecMessage|1|1|1|1|First additional header type 1 line
printRecMessage|1|1|2|1|Second additional header type 1 line
printRecMessage|1|4|1|1|First additional body type 4 line
printRecItem|1|Sale department 1 22% VAT|1|100,0|1|1
printRecMessage|1|4|1|1|Second additional body type 4 line
printRecItem|1|Sale department 2 10% VAT|1,234|100,0|2|1
printRecVoidItem|1|Sale correction dept 1 22% VAT|1|100,0|1|1
printRecItem|1|Sale department 3 4% VAT|2,5|100,17|3|1
printRecMessage|1|4|1|1|Third additional body type 4 line
printRecItem|1|Sale department 13 VAT exempt|12,13|216,17|13|1
printRecItemAdjustment|1|Discount on last sale|0|123,45|13|1
printRecItem|1|Sale department 10 VAT excluded|12,13|216,17|10|1
printRecSubtotalAdjustment|1|Discount on subtotal|1|300,12|0|1
printRecSubtotal|1|1
printRecMessage|1|2|1|1|First trailer type 2 line
printRecMessage|1|2|2|1|Second trailer type 2 line
printRecMessage|1|3|1|1|First additional trailer type 3 line
printRecMessage|1|3|2|1|Second additional trailer type 3 line
printBarCode|1|901|2|66|TWICE|FontA|CODE39|01234567ABCDEF
printRecTotal|1|Credit card index 3|6000,0|2|3|1
displayText|1|Customer Display Printed Doc. Comm.
```

12.1.2 Commercial Document with Lottery Code

```
printerFiscalReceipt
Printer|1
printRecItem|1|Sale department 1 22% VAT|1|100|1|1
printRecLotteryId|1|ABCDEFGN
printRecTotal|1|Credit card index 3|100|2|3|1
displayText|1|Customer Display Printed Doc. Comm.
```

12.1.3 Commercial Document with Personal Tax Code (Codice Fiscale)

```
printerFiscalReceipt
Printer|1
printRecItem|1|Sale department 1 22% VAT|1|100|1|1
printRecPersonalTaxCode|1|ABCDEFG12G34H567S
printRecTotal|1|Credit card index 3|100|2|3|1
displayText|1|Customer Display Printed Doc. Comm.
```

12.1.4 Commercial Document with Modifiers

```
printerFiscalReceipt
Printer|2
printRecItem|1|Sale department 1 22% VAT|1|100|1|1
printRecItemAdjustment|1|Deposit (Acconto)|10|10|1|1
printRecItemAdjustment|1|Free of Charge (Omaggio)|11|10|1|1
printRecItemAdjustment|1|Single-use Voucher (Buono monouso)|12|10|1|1
printRecTotal|1|Credit card index 3|70|2|3|1
displayText|1|Customer Display Printed Doc. Comm.
```

12.1.5 Commercial Refund Document

```
printerFiscalReceipt
Printer|2
printRecMessage|1|1|1|4|Additional Header
printRecMessage|1|4|1|4|REFUND 0166 0051 06012021 99MEX000004
printRecRefund|1|T-SHIRT|1|10|1|1
printRecTotal|1|CONTANTI|10,00|0|0|1
```

12.1.6 Commercial Void Document

```
printerFiscalReceipt
Printer|2
printRecMessage|1|1|1|4|Additional Header
printRecMessage|1|4|1|4|VOID 0221 0006 06012021 99MEY000005
printRecRefund|1|T-Shirt|1|10|1|1
printRecTotal|1|CONTANTI|10|0|1|1
```

12.1.7 Direct Invoice

```
printerFiscalReceipt
printRecMessage|1|5|1|1|Fattura Diretta
printRecMessage|1|5|2|1|=====
printRecMessage|1|6|1|1|Cliente numero 2
printRecMessage|1|6|2|1|Via Milano, 2a
printRecMessage|1|6|3|1|Roma 011111
printRecMessage|1|6|4|1|P. IVA 000000000
printRecMessage|1|6|5|1|C.F. ABCDEF00M22Z123Y
directIO|BeginDirectInvoice|1|0
printRecItem|1|LAVATRICE|1|299|1|1
printRecMessage|1|2|1|1|Trailer 1
printRecMessage|1|2|2|1|Trailer 2
printRecTotal|1|BANCOMAT|299|2|1|1
```

12.1.8 Z Report

```
printerFiscalReport
Printer|1
printZReport|1
displayText|1|Message on      customer display
```

12.1.9 Management document with Text Bar Codes and QR Codes

```
printerNonFiscal
Printer|1
printRecMessage|1|1|1|1|First additional header type 1 line
printRecMessage|1|1|2|1|Second additional header type 1 line
beginNonFiscal|1
printNormal|1|1|Line font 1
printNormal|1|2|
printNormal|1|2|CODE39 barcode standard
printBarCode|1|901|2|66|TWICE|FontA|CODE39|01234567ABCD
printNormal|1|2|
printNormal|1|2|Line font 2
printNormal|1|3|Line font 3
printNormal|1|2|
printNormal|1|2|CODE93 barcode standard
printBarCode|1|901|2|66|TWICE|FontA|CODE93|01234567ABCDEF
printNormal|1|2|
printNormal|1|4|Line font 4
printNormal|1|2|
printNormal|1|2|CODE 128 subtype A barcode standard
printBarCode|1|901|2|100|TWICE|FontA|CODE128|{A01234567ABCDEF
printNormal|1|2|
printNormal|1|2|CODE 128 subtype B barcode standard
printBarCode|1|901|2|100|TWICE|FontA|CODE128|{B01234567ABCDEF
printNormal|1|2|
printNormal|1|2|CODE 128 subtype C barcode standard
printBarCode|1|901|2|66|TWICE|FontA|CODE128|{C0123456789
printNormal|1|2|
printNormal|1|2|QR code type 2 standard
printQRCode|1|1|8|ALPHANUMERIC|LOW|QRCODE2|123456789
displayText|4|Customer Display   Printed Non Fisc Doc
endNonFiscal|1
```

12.1.10 Print Duplicate Commercial Document

```
printerNonFiscal
Printer|1
printDuplicateReceipt|1
```

12.1.11 Direct IO

```
printerCommand
printer|1
directIO|opRepartoLight|1|1|Mobile phone|100,0|1|1
directIO|opAddRowDesc|1|4|1|1|IMEI:0001213540
directIO|opRepartoLight|1|2|Product description|12,34|1|1
printReadProperty|LastOPCode
printReadProperty|LastOP
directIO|opSubTot|1
directIO|opPaymentLight|1|Cash payment|300,00|0|2|1
```

12.1.12 Double Direct IO (Native Protocol)

```
printerCommand
printer|1
directIO|DirectIO|321701
printReadProperty|LastRxFrameInDirectIoMode
```

12.1.13 Commercial Document with Graphic Coupon

```
printerFiscalReceipt
printer|1
beginFiscalReceipt|1
printRecItem|1|Mobile phone|1|100,0|1|1
printRecMessage|1|4|1|1|IMEI:0001213540
printGraphicCoupon|1|coupon.bin
printRecSubtotal|1|1
printRecTotal|1|Cash payment|300,00|0|1|1
```

12.1.14 Management Document with Graphic Coupon

```
printerNonFiscal
printer|1
beginNonFiscal|1
printGraphicCoupon|1|coupon.bin
endNonFiscal|1
```

12.1.15 Management Document with EFT-POS Lines

```
printerNonFiscal
printer|1
beginNonFiscal|1
printRecMessage|1|8|1|1|
endNonFiscal|1
```

12.1.16 Invoice Based on the Last Commercial Document

```
printerFiscalDocument
Printer|1
printRecMessage|1|5|1|1|First additional header type 5 line
printRecMessage|1|5|2|1|Second additional header type 5 line
printRecMessage|1|6|1|1|First client line
printRecMessage|1|6|2|1|Second client line
printFiscalDocument|1|Invoice|0
```

12.1.17 EJ /MPD Query (must be logged in)

```
printerCommand
Printer|1
queryEjContent|1|0|7|1|2021|8|1|2021|7-8_January.txt
```

12.1.18 EJ /MPD Invoice Query (must be logged in)

```
printerCommand
Printer|1
directIO|QueryContent|1|2|7|1|2021|8|1|2021|C:\Epson\Invoices_7-8_January.txt
```

12.1.19 Printer Status Query

```
printerCommand
Printer|1
queryPrinterStatus|1|Printer1_Status.txt
```

12.1.20 Printer RT Status Query

```
printerCommand
Printer|1
queryPrinterStatus|1|1|Printer1_RTStatus.txt
```

12.1.21 Customer Display Message

```
printerCommand
Printer|1
displayText|1|1234567890123456789012345678901234567890
```

12.1.22 Exit Application (Close EpsonFpMate)

```
applicationExit
```

12.2 XML File Examples

12.2.1 Commercial Document

```
<?xml version="1.0" encoding="utf-16" ?>
<printerFiscalReceipt>
  <Printer Num="2" />
  <printRecMessage Ope="1" Text="First additional header type 1 line" Type="1" Index="1" Font="1" />
  <printRecMessage Ope="1" Text="Second additional header type 1 line" Type="1" Index="2" Font="1" />
  <beginFiscalReceipt Ope="1" />
  <printRecMessage Ope="1" Text="First additional body type 4 line" Type="4" Index="1" Font="1" />
  <printRecItem Ope="1" Text="Sale department 1 22% VAT" Qty="1" UnitCost="100" Dep="1" Just="1" />
  <printRecMessage Ope="1" Text="Second additional body type 4 line" Type="4" Index="1" Font="1" />
  <printRecItem Ope="1" Text="Sale department 2 10% VAT" Qty="1,234" UnitCost="100" Dep="2" Just="1" />
  <printRecVoidItem Ope="1" Text="Sale correction dept 1 22% VAT" Qty="1" UnitCost="100" Dep="1" Just="1" />
  <printRecItem Ope="1" Text="Sale department 3 4% VAT" Qty="2,5" UnitCost="100,17" Dep="3" Just="1" />
  <printRecMessage Ope="1" Text="Third additional body type 4 line" Type="4" Index="1" Font="1" />
  <printRecItem Ope="1" Text="Sale department 13 VAT exempt" Qty="12,13" UnitCost="216,17" Dep="13" Just="1" />
  <printRecItemAdjustment Ope="1" Text="Discount on last sale" Type="0" Amount="123,45" Dep="13" Just="1" />
  <printRecItem Ope="1" Text="Sale department 10 VAT excluded" Qty="12,13" UnitCost="216,17" Dep="10" Just="1" />
  <printRecSubtotalAdjustment Ope="3" Text="Discount on subtotal" Type="1" Amount="300,12" Dep="0" Just="2" />
  <printRecSubtotal Ope="1" Type="1" />
  <printRecMessage Ope="1" Text="First trailer type 2 line" Type="2" Index="1" Font="1" />
  <printRecMessage Ope="1" Text="Second trailer type 2 line" Type="2" Index="2" Font="1" />
  <printRecMessage Ope="1" Text="First additional trailer type 3 line" Type="3" Index="1" Font="1" />
  <printRecMessage Ope="1" Text="Second additional trailer type 3 line" Type="3" Index="2" Font="1" />
  <printBarcode Ope="1" Pos="901" Width="2" Height="66" Hri="TWICE" Font="FontA" Tipo="CODE39" Text="0123456789" />
  <printRecTotal Ope="1" Text="Credit card index 3" Amount="6000,0" Type="2" Index="3" Just="1" />
  <displayText Ope="1" Text="Message on customer display" />
</printerFiscalReceipt>
```

12.2.2 Commercial Document with Lottery Code

```
<?xml version="1.0" encoding="utf-16" ?>
<printerFiscalReceipt>
  <Printer Num="1" />
  <printRecItem Ope="1" Text="Sale department 1 22% VAT" Qty="1" UnitCost="100" Dep="1" Just="1" />
  <printRecLotteryId Ope="1" lotteryId="ABCDEFGN" />
  <printRecTotal Ope="1" Text="Credit card index 3" Amount="100" Type="2" Index="3" Just="1" />
  <displayText Ope="1" Text="Message on customer display" />
</printerFiscalReceipt>
```

12.2.3 Commercial Document with Personal Tax Code (Codice Fiscale)

```
<?xml version="1.0" encoding="utf-16" ?>
<printerFiscalReceipt>
  <Printer Num="1" />
  <printRecItem Ope="1" Text="Sale department 1 22% VAT" Qty="1" UnitCost="100" Dep="1" Just="1" />
  <printRecPersonalTaxCode Ope="1" taxCode="ABCDEF12G34H567S" />
  <printRecTotal Ope="1" Text="Credit card index 3" Amount="100" Type="2" Index="3" Just="1" />
  <displayText Ope="1" Text="Message on customer display" />
</printerFiscalReceipt>
```

12.2.4 Commercial Document with Modifiers

```
<?xml version="1.0" encoding="utf-16" ?>
<printerFiscalReceipt>
  <Printer Num="2" />
  <printRecItem Ope="1" Text="Sale department 1 22% VAT" Qty="1" UnitCost="100" Dep="1" Just="1" />
  <printRecItemAdjustment Ope="1" Text="Deposit (Acconto)" Type="10" Amount="10" Dep="1" Just="1" />
  <printRecItemAdjustment Ope="1" Text="Free of Charge (Omaggio)" Type="11" Amount="10" Dep="1" Just="1" />
  <printRecItemAdjustment Ope="1" Text="D Single-use Voucher (Buono monouso)" Type="12" Amount="10"
    Dep="1" Just="1" />
  <printRecTotal Ope="1" Text="Credit card index 3" Amount="70" Type="2" Index="3" Just="1" />
  <displayText Ope="1" Text="Message on customer display" />
</printerFiscalReceipt>
```

12.2.5 Commercial Refund Document

```
<?xml version="1.0" encoding="utf-16" ?>
<printerFiscalReceipt>
  <Printer Num="2" />
  <printRecMessage Ope="1" Text="Additional Header" Type="1" Index="1" Font="4" />
  <printRecMessage Ope="1" Text="REFUND 0166 0053 06012021 99MEX0000004" Type="4" Index="1" Font="4" />
  <printRecRefund Ope="1" Text="T-SHIRT" Qty="1" UnitCost="10" Dep="1" Just="1" />
  <printRecTotal Ope="1" Text="CONTANTI" Amount="10" Type="0" Index="1" Just="1" />
</printerFiscalReceipt>
```

12.2.6 Commercial Void Document

```
<?xml version="1.0" encoding="utf-16" ?>
<printerFiscalReceipt>
  <Printer Num="2" />
  <printRecMessage Ope="1" Text="Additional Header" Type="1" Index="1" Font="4" />
  <printRecMessage Ope="1" Text="VOID 0166 0053 06012021 99MEY0000005" Type="4" Index="1" Font="4" />
  <printRecRefund Ope="1" Text="T-SHIRT" Qty="1" UnitCost="10" Dep="1" Just="1" />
  <printRecTotal Ope="1" Text="CONTANTI" Amount="10" Type="0" Index="1" Just="1" />
</printerFiscalReceipt>
```

12.2.7 Direct Invoice

```
<?xml version="1.0" encoding="utf-16" ?>
<printerFiscalReceipt>
  <Printer Num="1" />
  <printRecMessage Ope="1" Text="Fattura Diretta" Type="5" Index="1" Font="1" />
  <printRecMessage Ope="1" Text="=====" Type="5" Index="2" Font="1" />
  <printRecMessage Ope="1" Text="Cliente numero 2" Type="6" Index="1" Font="1" />
  <printRecMessage Ope="1" Text="Via Milano, 2" Type="6" Index="2" Font="1" />
  <printRecMessage Ope="1" Text="Roma 011111" Type="6" Index="3" Font="1" />
  <printRecMessage Ope="1" Text="P. IVA 00000000" Type="6" Index="4" Font="1" />
  <printRecMessage Ope="1" Text="C.F. ABCDEF00M22Z123Y" Type="6" Index="5" Font="1" />
  <directIO OcxMethod="BeginDirectInvoice" Arg0="1" Arg1="0" />
  <printRecItem Ope="1" Text="LAVATRICE" Qty="1" UnitCost="299" Dep="1" Just="1" />
  <printRecMessage Ope="1" Text="Trailer 1" Type="2" Index="1" Font="4" />
  <printRecMessage Ope="1" Text="Trailer 2" Type="2" Index="2" Font="4" />
  <printRecTotal Ope="1" Text="BANCOMAT" Amount="299" Type="2" Index="1" Just="1" />
</printerFiscalReceipt>
```

12.2.8 Z Report

```
<?xml version="1.0" encoding="utf-16" ?>
<printerFiscalReport>
  <Printer Num="1" />
  <printZReport Ope="1" />
  <displayText Ope="1" Text="Message on customer display" />
</printerFiscalReport>
```


12.2.9 Management document with Text Bar Codes and QR Codes

```
<?xml version="1.0" encoding="utf-16" ?>
<printerNonFiscal>
  <Printer Num="1" />
  <printRecMessage Ope="1" Text="First additional header type 1 line" Type="1" Index="1" Font="1" />
  <printRecMessage Ope="1" Text="Second additional header type 1 line" Type="1" Index="2" Font="1" />
  <beginNonFiscal Ope="1" />
  <printNormal Ope="1" Font="1" Text="Line font 1" />
  <printNormal Ope="1" Font="2" Text="" />
  <printNormal Ope="1" Font="2" Text="CODE39 barcode standard" />
  <printBarCode Ope="1" Position="901" Width="2" Height="66" Hri="TWICE" Font="FontA" Tipo="CODE39"
    Text="01234567ABCD" />
  <printNormal Ope="1" Font="2" Text="" />
  <printNormal Ope="1" Font="2" Text="Line font 2" />
  <printNormal Ope="1" Font="3" Text="Line font 3" />
  <printNormal Ope="1" Font="2" Text="" />
  <printNormal Ope="1" Font="2" Text="CODE93 barcode standard" />
  <printBarCode Ope="1" Position="901" Width="2" Height="66" Hri="TWICE" Font="FontA" Tipo="CODE93"
    Text="01234567ABCDEFGH" />
  <printNormal Ope="1" Font="2" Text="" />
  <printNormal Ope="1" Font="4" Text="Line font 4" />
  <printNormal Ope="1" Font="2" Text="" />
  <printNormal Ope="1" Font="2" Text="CODE 128 subtype A barcode standard" />
  <printBarCode Ope="1" Position="901" Width="2" Height="66" Hri="TWICE" Font="FontA" Tipo="CODE128"
    Text="{A01234567ABCDEFGH}" />
  <printNormal Ope="1" Font="2" Text="" />
  <printNormal Ope="1" Font="2" Text="CODE 128 subtype B barcode standard" />
  <printBarCode Ope="1" Position="901" Width="2" Height="66" Hri="TWICE" Font="FontA" Tipo="CODE128"
    Text="{B01234567ABCDEFGH}" />
  <printNormal Ope="1" Font="2" Text="" />
  <printNormal Ope="1" Font="2" Text="CODE 128 subtype C barcode standard" />
  <printBarCode Ope="1" Position="901" Width="2" Height="66" Hri="TWICE" Font="FontA" Tipo="CODE128"
    Text="{C0123456789}" />
  <printNormal Ope="1" Font="2" Text="" />
  <printNormal Ope="1" Font="2" Text="QR code type 2 standard" />
  <printQRCode Ope="1" Position="1" Size="8" DataType="ALPHANUMERIC" ErrorCorrection="LOW" Tipo="QRCODE2"
    Text="123456789" />
  <displayText Ope="1" Text="Message on customer display" />
</printerNonFiscal>
```

12.2.10 Print Duplicate Commercial Document

```
<?xml version="1.0" encoding="utf-16" ?>
<printerNonFiscal>
  <Printer Num="1" />
  <printDuplicateReceipt Ope="1" />
</printerNonFiscal>
```

12.2.11 Direct IO

```
<?xml version="1.0" encoding="utf-16" ?>
<printerCommand>
  <Printer Num="1" />
  <directIO OcxCMethod="opRepartoLight" Arg0="1" Arg1="1" Arg2="Mobile phone" Arg3="100,0" Arg4="1" Arg5="1"
    />
  <directIO OcxCMethod="opAddRowDesc" Arg0="1" Arg1="4" Arg2="1" Arg3="1" Arg4="IMEI:0001213540" />
  <directIO OcxCMethod="opRepartoLight" Arg0="1" Arg1="1" Arg2="Product description" Arg3="12,34" Arg4="1"
    Arg5="1" />
  <printReadProperty OcxCProperty="LastOPCode" />
  <printReadProperty OcxCProperty="LastOP" />
  <directIO OcxCMethod="opSubTot" Arg0="0" />
  <directIO OcxCMethod="opPaymentLight" Arg0="1" Arg1="Cash payment" Arg2="300,00" Arg3="0" Arg4="2"
    Arg5="1" />
</printerCommand>
```

12.2.12 Double Direct IO (Native Protocol)

```
<?xml version="1.0" encoding="utf-16" ?>
<printerCommand>
  <Printer Num="1" />
  <directIO OcMethod="DirectIO" Arg0="321701" comment="Read fiscal serial number" />
  <printReadProperty OcProperty="LastRxFrameInDirectIoMode" />
</printerCommand>
```

12.2.13 Commercial Document with Graphic Coupon

```
<?xml version="1.0" encoding="utf-16" ?>
<printerFiscalReceipt>
  <Printer Num="1" />
  <beginFiscalReceipt Ope="1" />
  <printRecItem Ope="1" Text="Mobile phone" Qty="1" UnitCost="100" Dep="1" Just="1" />
  <printRecMessage Ope="1" Text="IMEI:0001213540" Type="4" Index="1" Font="1" />
  <printGraphicCoupon Ope="1" GraphicFile="coupon.bin" />
  <printRecTotal Ope="1" Text="Cash payment" Amount="300" Type="0" Index="1" Just="1" />
</printerFiscalReceipt>
```

12.2.14 Management Document with Graphic Coupon

```
<?xml version="1.0" encoding="utf-16" ?>
<printerNonFiscal>
  <Printer Num="1" />
  <beginNonFiscal Ope="1" />
  <printGraphicCoupon Ope="1" GraphicFile="coupon.bin" />
  <endNonFiscal Ope="1" />
</printerNonFiscal>
```

12.2.15 Management Document with EFT-POS Lines

```
<?xml version="1.0" encoding="utf-16" ?>
<printerNonFiscal>
  <Printer Num="1" />
  <beginNonFiscal Ope="1" />
  <printRecMessage Ope="1" Text="" Type="8" Index="1" Font="1" />
  <endNonFiscal Ope="1" />
</printerNonFiscal>
```

12.2.16 Invoice Based on the Last Commercial Document

```
<?xml version="1.0" encoding="utf-16" ?>
<printerFiscalDocument>
  <Printer Num="1" />
  <printRecMessage Ope="1" Text="First additional header type 5 line" Type="5" Index="1" Font="1" />
  <printRecMessage Ope="1" Text="Second additional header type 5 line" Type="5" Index="2" Font="1" />
  <printRecMessage Ope="1" Text="First client line" Type="6" Index="1" Font="1" />
  <printRecMessage Ope="1" Text="Second client line" Type="6" Index="2" Font="1" />
  <printFiscalDocument Ope="1" Document="Invoice" Number="0" />
</printerFiscalDocument>
```

12.2.17 MPD (EJ) Query

```
<?xml version="1.0" encoding="utf-16" ?>
<printerCommand>
  <Printer Num="1" />
  <queryEjContent Ope="1" dataType="0" stDay="7" stMonth="1" stYear="2021" endDay="8" endMonth="1"
    endYear="2021" fileName="7-8_January.txt" />
</printerCommand>
```

12.2.18 MPD (EJ) Invoice Query

```
<?xml version="1.0" encoding="utf-16" ?>
<printerCommand>
  <Printer Num="1" />
  <directIO OcxCMethod="QueryContent" Arg0="1" Arg1="2" Arg2="7" Arg3="1" Arg4="2021" Arg5="8" Arg6="1"
    Arg7="2021" Arg8="C:\Epson\Invoices_7-8_January.txt" />
</printerCommand>
```

12.2.19 Printer Status Query

```
<?xml version="1.0" encoding="utf-16" ?>
<printerCommand>
  <Printer Num="1" />
  <queryPrinterStatus Ope="1" fileName="Printer1_Status.txt" />
</printerCommand>
```

12.2.20 Printer RT Status Query

```
<?xml version="1.0" encoding="utf-16" ?>
<printerCommand>
  <Printer Num="1" />
  <queryPrinterStatus Ope="1" statusType="1" fileName="Printer1_RTStatus.txt" />
</printerCommand>
```

12.2.21 Customer Display Message

```
<?xml version="1.0" encoding="utf-16" ?>
<printerCommand>
  <Printer Num="1" />
  <displayText Ope="1" Text="1234567890123456789012345678901234567890" />
</printerCommand>
```

12.2.22 Exit Application (Close EpsonFpMate)

```
<?xml version="1.0" encoding="utf-16" ?>
<applicationExit />
```

12.3 WinEcrCom File D-Type Format Examples

12.3.1 Commercial Document 1

```

VEND  REP=1 , PREZZO=      5.50, QTY=    1.00, DES='san marzano '
VEND  REP=1 , PREZZO=      8.80, QTY=    1.00, DES='verace      '
VEND  REP=1 , PREZZO=      8.50, QTY=    1.00, DES='sant agata  '
PERCA  ALIQ=  10.00 , SUBTOT
PRMSG LINE='Prestazione Gratuita
SCONTO VALORE=  2.80 , SUBTOT
PRMSG LINE='La tua card oggi ti ha
PRMSG LINE='dato diritto ad uno
PRMSG LINE='sconto di E.      5,08
PRMSG LINE='Promo per E.
PRMSG LINE='per infocard visita il
PRMSG LINE='sito www.epson.it
PRMSG LINE='
PRMSG LINE='Punti      0 Al 24/09/20
PRMSG LINE='
PRMSG LINE='Tavolo N.   36
CORT R1='--- CORTESIA 1 -----', R2='--- CORTESIA 2 -----'
CHIU  t=1, imp=      17.72, des='cash'

```

12.3.2 Commercial Document 2

```

; Esempio di scontrino di vendita inviato a ECR mediante ECRCOM.EXE
; -----
;
CLEAR          ;preme il tasto C
CHIAVE REG     ;conferma che la cassa si trovi in assetto Registrazione

VEND REP=1,PREZZO=25.00          ;vendita semplice a reparto 1
SCONTO VAL=500                   ;sconto assoluto diretto su reparto

VEND REP=2,PREZZO=25.00          ;vendita semplice a reparto 2
VEND REP=3,PREZZO=25.00          ;vendita semplice a reparto 3
VEND REP=4,PREZZO=25.00          ;vendita semplice a reparto 4

VEND REP=2,PREZZO=25.00,STORNO   ;storno della vendita semplice a reparto 2

CORT R1='PROVA MESSAGGIO 1',R2='PROVA MESSAGGIO 2' ;messaggio di cortesia

SUBT                          ;subtotale
CHIU  T=1,IMP=50.00           ;chiusura mista : 50.00 in contanti
CHIU  T=2                      ;                e il resto a credito

```

12.3.3 Commercial Document with Fiscal Tax Code (Cod. Fiscale) on Printer 2

```

PRMSG LINE='PRINTER|2'
VEND REP=1, DES='HAMBURGER INCROCIO C', PREZZO=    2.08
VEND REP=1, DES='HAMBURGER INCROCIO C', PREZZO=    2.02
VEND REP=1, DES='HAMBURGER INCROCIO C', PREZZO=    2.02
VEND REP=1, DES='HAMBURGER INCROCIO C', PREZZO=    2.03
INP TERM=61
INP ALFA='ABCDEF12G34H567S',TERM=49
PRMSG LINE='-----'
PERCA ALIQ=    5.00, SUBTOT
CHIU  t=0, imp=   10.05

```

12.3.4 Commercial Document with QR Code

```
VEND REP=1, PREZZO= 0.00, QTY= 2.000, DES='Persone '
VEND REP=1, PREZZO= 2.00, QTY= 2.000, DES='Servizio '
VEND REP=1, PREZZO= 3.30, QTY= 1.00, DES='bruschetta '
VEND REP=1, PREZZO= 5.00, QTY= 1.00, DES='arancini e f'
PERCA ALIQ= 90.00 , SUBTOT
NOFIS RIGA=''
PRMSG LINE='Operatore : MICHELE - MICHELE #17 '
PRMSG LINE='Tavolo : 1 '
PRMSG LINE='Conto : 48356 '
ALLEG ON
CHIU t=1, imp= 1.23
ALLEG RIGA='http://www.mysite.com/myApp/', BARCODE=158, SCALA=4, ALLINEAMENTO=1
ALLEG FINE
```

12.3.5 Commercial Document with Lottery Code

```
PRMSG LINE='PRINTER|1'
VEND REP=1, DES='HAMBURGER INCROCIO C', PREZZO= 2.08
VEND REP=1, DES='HAMBURGER INCROCIO C', PREZZO= 2.02
VEND REP=1, DES='HAMBURGER INCROCIO C', PREZZO= 2.02
VEND REP=1, DES='HAMBURGER INCROCIO C', PREZZO= 2.03
INP TERM=167
INP ALFA='ABCDEFGN', TERM=145
PRMSG LINE='-----'
PERCA ALIQ= 5.00, SUBTOT
CHIU t=0, imp= 10.05
```

12.3.6 Commercial Refund Document

```
INP TERM=180
INP TERM=145
INP ALFA='99MEY000203', TERM=145
INP ALFA=00210042, TERM=145
INP NUM=060220, TERM=145
CLEAR
VEND REP=1, PREZZO=10.00, DES='TEST RESO'
CHIU
```

12.3.7 Commercial Void Document

```
INP TERM=188
INP TERM=145
INP ALFA='99MEY000203', TERM=145
INP ALFA=00210042, TERM=145
INP NUM=060220, TERM=145
CLEAR
VEND REP=1, PRE=69.99, DES='TEST VOID'
CHIU
```

12.3.8 Management Document with Barcode

```
NOFIS APRI
NOFIS DES='TEST'
NOFIS DES='123456789', BARCODE
NOFIS CHIUDI
```

12.3.9 Direct Invoice

```
FATTURA NOME1=NOME_ONE, NOME2=NOME_TWO, NOME3=NOME_THREE, NOME4=NOME_FOUR,  
NOME5=NOME_FIVE  
VEND REP=1, DES='SALE 1', PREZZO= 2.08  
PRMSG LINE='MESSAGGIO CORTESIA 1'  
PRMSG LINE='MESSAGGIO CORTESIA 2'  
PERCA ALIQ= 5.00, SUBTOT  
CHIUS t=0, imp= 10.05
```

12.3.10 Display Message

```
VIS CLI1='1234567890 1234567890 '
```

12.3.11 Z Report without X-01 Financial Report

```
report num=1, modo=1, file='Z_Report.txt'
```

or

```
AZZGIO num=1, modo=1, file='Z_Report.txt'
```

12.3.12 Z Report with X-01 Financial Report

```
report num=1, modo=2, file='X and Z Reports.txt'
```

or

```
AZZGIO num=1, modo=2, file='X and Z Reports.txt'
```

12.3.13 Concatenation

EpsonFpMate can process multiple printouts in a single file. For example:

```
VEND REP=1 , PREZZO= 8.80, QTY= 1.00, DES='PANINO'  
CHIU t=1, imp= 10.00  
NOFIS APRI  
NOFIS DES='TEST'  
NOFIS DES='123456789', BARCODE  
NOFIS CHIUDI
```