



EFR GUIDE [PT]

Implementation Details Portugal

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1. Introduction

1.1 The EFSTA System

serves as software blackbox to fulfill country specific fiscal requirements for POS systems using a unified API.

So, the frontend application operated by the cashier prepares transaction data (items, prices), which finally is registered with the EFR (EFSTA Fiscal Register) service. Here the transaction is augmented with fiscal reference data and stored on local disk and in the EFSTA cloud archive.

In Portugal it is mandatory to use officially certified software ([CERTIFICAÇÃO DE SOFTWARE MODELO 24](#)), for this different approaches exist:

- Variant A: Certification of your POS software using EFR
You have to implement specific rules in your master data administration, POS frontend, EFSTA is used for cryptography, archiving and periodic SAF-T export to the Fiscal Authority. Be aware that you will require consulting and the full certification process will take about one year.
- Variant B: Use of the certified SimplePOS API
Your software will act as data entry only, the registration of transactions is done by EFR, you have to print the preformatted documents. Also here consulting is required, but in total your efforts will be a fraction of variant A.

2. Requirements

2.1 System requirements

Usually EFR runs on fail-safe the cash register system, but alternatively it can be operated as a server instance, also for multiple clients

- Windows XP SP3 or higher (x86/x64), Linux (x86/x64), OS-X
- node.js is installed as runtime engine, currently v10.15.3
- 1 GB of hard disk space is reserved by default, minimal 100 MB
- administrator privileges required during installation
- internet access for cloud services (<https://fr.efsta.net> IP 52.178.64.26 port 443)
- internet access of the fiscal portal over <https://servicos.portaldasfinancas.gov.pt:422/SeriesWSService> if required online communication can be substituted by providing files on the local file system. For more details see section ATCUD below

2.2 Printer

You will have to print fiscal documents according to law. If your software is certified (Variant A), your document layout will be part of the certification. With SimplePOS (Variant B) either EFR prints directly (only Epson TM-T88 or compatible over USB, LAN or RS232), or you send the preformatted output to the printer controlled by your software (recommended).

The printer must be able to print the mandatory QR code (https://info.portaldasfinancas.gov.pt/pt/docs/Conteudos_1pagina/Documents/QR_Code_Technical_Specifications.pdf).

3. Setup

3.1 EFR Installation

The EFR software can be downloaded from <http://public.efsta.net/EFR>, select country version [PT] for your platform.

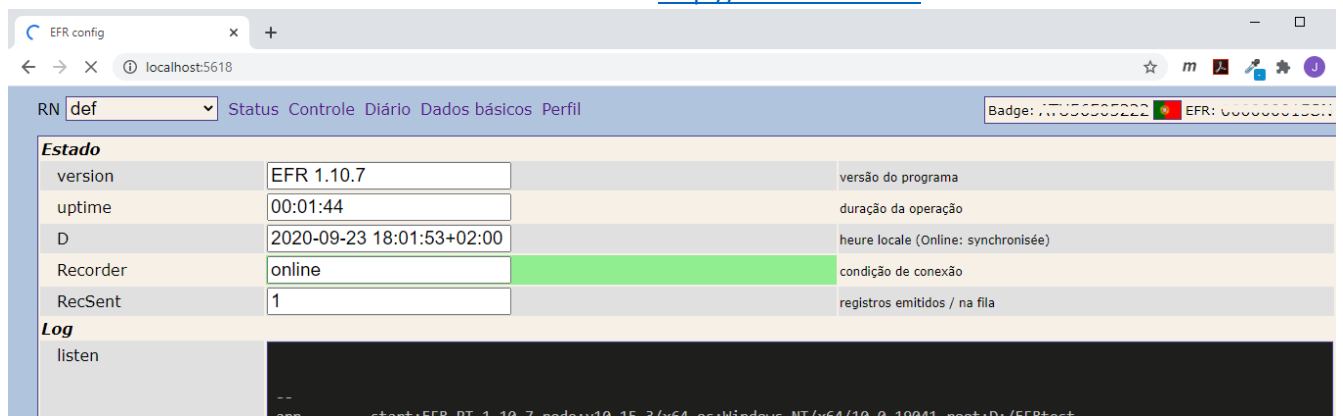
Windows:

- .msi installer
- service "EFR" is created
- target directory C:\ProgramData\EFR

Linux:

- .zip package
- `mkdir EFR` and unzip into this directory
- `chmod x` to `install.sh` and run this script
- `./install.sh --service` creates a service file in `/etc/systemd/system`

EFR installation success can be verified via web access <http://localhost:5618>:



The screenshot shows a web browser window with the URL `localhost:5618`. The page displays the EFR configuration interface. At the top, there is a navigation bar with a dropdown menu for 'RN' (set to 'def') and several menu items: 'Status', 'Controle', 'Diário', 'Dados básicos', and 'Perfil'. A 'Badge' field shows the value 'ATU50000222' and a flag for Portugal. Below this, there is a table with the following data:

Estado	
version	EFR 1.10.7
uptime	00:01:44
D	2020-09-23 18:01:53+02:00
Recorder	online
RecSent	1

Below the table, there is a 'Log' section with a 'listen' button. The log content shows the start of the EFR service: `start:EFR_PT_1.10.7_node-v10.15.3/x64_os-Windows_NT/x64/10.0.19041_root=D:/EFRtest`.

3.2 Setting Base Parameters

One of the key requirements of a fiscal journal is the unique identification of documents (transactions). As the incremental numbering of documents is performed per cash register, each register has a specific ID consisting of TL (Transaction Location) and TT (Transaction Terminal).

3.2.1 RN_SINGLE

So, on systems running a local EFR harden the settings during installation on page <http://localhost:5618> "Dados básicos":

RN	def	Status	Controle	Diário	Dados básicos	Perfil
Cmp Empresa / Company						
TaxId	999999990	Nú				
Nam	EMPRESA DE TESTE	No				
ValidationCode		Có				
Loc Localização / Location						
TL	001	Nú				
label		De				
Adr	123 Rua Longa	Mc				
City	Lisboa	Lo				
Zip	1100	Có				
Ctry	PT	Pai				
Trm Caixa / Terminal						
TT	2	Nú				
salvar						

and do not specify ESR.TL and ESR.TT in your /register request.

3.2.2 RN_MULTI

In EFR server mode managing multiple clients, please set RN_TT in <http://localhost:5618> "Perfil":

Client Assignment	
RN_TT	<input checked="" type="checkbox"/>

In this case, specify ESR.TL and ESR.TT (see EFR Reference) in your request, a separate storage area per client (directory /EFR/rn/{TL}_{TT}/) is created managing its own number range.

3.2.3 API-Key

For certification and field usage of EFR you have to obtain a partner specific API-Key from your efsta sales representative, which has to be entered in "Perfil":

Attributes	Fiscal_ApiKey= [REDACTED]
------------	---------------------------

3.3 Base data/company header data

Before sending the first transaction the company header sales data should be configured. This can be done manually or via request.

3.3.1 Manual configuration

Navigate to <http://localhost:5618> in your browser and open "Dados básicos" (base data). Enter the field values required, data is replicated to EFSTA cloud. In case of an online EFR this data can also be sent from the cloud to EFR. Sending of configuration data must be allowed in the efsta cloud and a company default setting should be configured in the cloud.

3.3.2 Programmatic configuration

```
<Cfg>
<Cmp TaxId="PT999999999" Nam="My Company" ValidationCode="ATCD"/>
<Loc TL="1" label="1" Adr="123 Long Road" Zip="12345" City="Lisboa" Ctry="PT"/>
<Trm TT="1"/>
```

</Cfg>

or

```
{
  "Cfg": {
    "Cmp": {
      "TaxId": "PT999999999",
      "Nam": "My Company",
      "ValidationCode": "ATCD"
    },
    "Loc": {
      "TL": "1",
      "label": "1",
      "Adr": "123 Long Road",
      "Zip": "12345",
      "City": "Lisboa",
      "Ctry": "PT"
    },
    "Trm": {
      "TT": "1"
    }
  }
}
```

4. Transactions

4.1 First Test Transaction

The frontend application communicates with the EFR via REST Webservice.

You can simulate this behavior in your browser before starting software implementation. To do so install a REST client of your choice, for example "Advanced REST client" for Google Chrome.

Parameters for the web request are:

URL: <http://localhost:5618/register>
Method: POST
Body: transaction data as XML or JSON, e.g.:

```
<Tra>
  <ESR T="3.98" TN="1234" Opr="555" OprN="Ana">
    <PosA>
      <Pos PN="1" SKU="571233" Dsc="Pão de centeio integral 500g" TaxG="C"
        Amt="1.49" Qty="1" Pri="1.49" />
      <Pos PN="2" SKU="356889" Dsc="COLGATE Escova dente dura" TaxG="A"
        Amt="2.99" Qty="1" Pri="2.99" />
      <Mod PN="2" Dsc="Promoção" Amt="-0.50" />
    </PosA>
    <PayA>
      <Pay Dsc="Numerário" Amt="5.00" PayG="cash" />
      <Pay Dsc="Troco" Amt="-1.02" PayG="change" />
    </PayA>
    <TaxA>
      <Tax TaxG="A" Prc="23" Net="2.02" TAmt="0.47" Amt="2.49"/>
      <Tax TaxG="C" Prc="6" Net="1.41" TAmt="0.08" Amt="1.49"/>
    </TaxA>
  </ESR>
</Tra>
```

```
{"Tra":{
  "ESR":{"T":3.98,"TN":1234,"Opr":555,"OprN":"Ana",
  "PosA":[
    {"_":"Pos","PN":1,"SKU":"571233","Dsc":"Pão de centeio integral 500g",
    "TaxG":"C","Amt":"1.49","Qty":"1","Pri":"1.49"},
    {"_":"Pos","PN":2,"SKU":"356889","Dsc":"COLGATE Escova dente dura",
    "TaxG":"A","Amt":"2.99","Qty":"1","Pri":"2.99"},
    {"_":"Mod","PN":2,"Dsc":"Promoção","Amt":"-0.50"}],
  "PayA":[
    {"Dsc":"Numerário","Amt":"5.00","PayG":"cash"},
    {"Dsc":"Troco","Amt":"-1.02","PayG":"change"}
  ],
  "TaxA":[
    {"_":"Tax","TaxG":"A","Prc":"23","Net":"2.02","TAmt":"0.47","Amt":"2.49"},
    {"_":"Tax","TaxG":"C","Prc":"6","Net":"1.41","TAmt":"0.08","Amt":"1.49"}
  ]
}}
```

Response:

```
<TraC SQ="4">
  <Result RC="OK"/>
  <ESR TL="001" TT="2" D="2023-09-24T14:53:45" FN="FS 001_2.23/1">
</ESR>
```

```

<Fis>
  <Payload>2023-09-24;2023-09-24 14:53:45;FS 001_2.23/1;3.98;</Payload>
  <Signature>EWZM3...xhK0=</Signature>
  <Code>A:999999990*B:999999990*C:PT*D:FS*F:20230924...</Code>
  <Serial>1</Serial>
  <Tag Label="ATCUD:" Value="AAJFFY3FCG-1" Name="ATCUD"/>
  <Tag Label="" Value="EH+U-Processado por programa certificado nº 9999/AT"
    Name="Sec"/>
  <Tag Label="Data:" Value="2023-09-24 14:53:45" Name="Date"/>
  <Tag Label="Operador:" Value="Ana" Name="Opr"/>
</Fis>
</TraC>

```

The response contains fields automatically by EFR, and the fiscal security data including signature.

The <TaxA> array is basically optional, but it is recommended to provide it to avoid differences between POS and EFR calculus.

The <Code> field contains the data to be printed as QR (version 9, M) on the ticket.

4.2 [PT] Specific ESR Fields

4.2.1 Operator ID Opr

To each transaction the cash register operator ID shall be assigned. Provide field ESR.Opr (and optionally operator name ESR.OprN), default is the username logged in (operating system).

Alternatively you can use separate nonfiscal Logon/Logoff transactions:

```

<Tra>
  <ESR TN="1233" NF="LOGON" Opr="555" OprN="Ana"/>
</Tra>

```

...

```

<Tra>
  <ESR TN="1250" NF="LOGOFF"/>
</Tra>

```

4.2.2 Payment Group PayG

SAF-T export format expects payment group specification for payment lines. Else this field value is derived from <Pay Dsc=...> field using a string match list. For details see "SAF-T Payment Group Codes" in Appendix.

4.2.3 Services

In SAF-T export the positions have to be marked as products (default) or services. To register services please tag the lines with position type "Svc":

```

...
  <PosA>

```

```
<Pos PN="1" SKU="2220007" Dsc="Parafusos DIN933 M10x50" TaxG="A"
  Amt="55.00" Qty="100" Pri="0.55" />
<Svc PN="2" SKU="9900023" Dsc="Serviço de reparo" TaxG="A"
  Amt="70.00" Qty="1" Pri="70.00" />
```

...

...

```
"PosA": [
  { "_": "Pos", "PN": 1, "SKU": "2220007", "Dsc": "Parafusos DIN933 M10x50", "TaxG": "A",
    "Amt": "55.00" Qty="100" Pri="0.55"},
  { "_": "Svc", "PN": 2, "SKU": "9900023", "Dsc": "Serviço de reparo", "TaxG": "A",
    "Amt": "70.00", "Qty": "1", "Pri": "70.00" }
```

...

4.2.4 Unique Fiscal Number (FN)

In cash register systems usually each transaction gets an incremental transaction number. But the fiscal rules determine numbering per document type (e.g. invoice, credit note, ...). You can register your transaction number in ESR field TN as reference, but always a separate Fiscal Number FN will be assigned and stored in the journal. The current number part is reset to 1 with each year's first transaction.

4.2.5 Fiscal Signature

A digital signature is created for each transaction and blockchained according to law, parts of the signature are printed in receipt trailer line `Processado por programa certificado...` As the signature is included in SAF-T [PT] export data, the fiscal authority can and will verify signature values and chain.

4.3 Document Types

4.3.1 Sale / Credit Note (Fatura Simplificado / Nota de crédito)

As with other countries using fiscal printers, mixing of positive (sales) and negative (return/void) positions within one transaction is not allowed and will lead to a `<TraC><Result RC="BAD">` response. Please train your cashiers to do this in two separate steps.

To accept data from applications, which do not remove lines, but immediately void unwanted scans, negative (return/void) positions are allowed, as long as they correspond to positive positions within the same transaction.

Transactions with negative total (e.g. `ESR.T="-3.98"`) automatically are registered as credit notes "Nota de Crédito", which are printed showing inverted amounts and quantities. You have to reference the original transaction in fields `ESR.RFN` (or `ESR.RTL`, `ESR.RTT`, `ESR.RTN`) and `Pos.RPN`. Also specify a reason for SAF-T export:

```
<Tra>
  <ESR T="-3.98" ... RFN="FS 001_1.23/1234" Rsn="Jacket did not fit">
  ...
```

4.3.2 Invoice (Fatura)

For sales with a total from EUR 1000.00 instead of FS "Fatura simplificado" an invoice FT "Fatura" is issued. For this, customer data including the customer's TaxId NIF is required:

```
<Tra>
  <ESR T="1008.98" ...>
    <Ctm TaxId="PT123456789" Nam="Nuno MUELLER" Adr="Rua do Porto, 12" City="Carcavelos"
    Zip="2775-543" Ctry="PT"/>
  ...
```

If a ticket (with lower ESR.T) is registered including <Ctm TaxId=, also FT will be used.

<Ctm> information without TaxId is shown as unknown customer (CustomerTaxID=Desconhecido) in SAF-T, document type is FS.

Please be advised that cash payment (PayG="NU" | PayG="cash") must be less than EUR 3000.00.

4.3.3 Voiding Documents (Anulação)

Mark the transaction with <ESR ... Void="1", specify RFN and send the positions inverted. You will not get a <Fis> tag in the response, as the void trigger itself not signed - the original ticket is flagged as voided (InvoiceStatus=A) in SAF-T.

For voiding the last transaction /register/void/last (see EFR Reference) may be used.

4.3.4 Override of Document Type

The document type is selected automatically upon signum of the transaction total. If another document type as FS/FT/NC is required, you can specify it in ESR field Document Type DT:

```
<Tra>
  <ESR DT="CM" ...
```

See appendix for a full list of supported document types.

4.3.5 Nonfiscal Documents

Additional cases which were not described here may be sent as non-fiscal. Using attribute NF, no signature will be created and these document types are not included in SAF-T export. See more information in our ESR table on [efstaDocs](#).

5. POS Administration

5.1 Document Reprints

To access the fiscal journal use <http://localhost:5618> "Diário", where you can search for specific field values. Single transaction reprints can be requested, which will be marked "Cópia do documento original ...".

5.2 Backup Strategy

During fiscal certification the backup strategy of the POS (databases) and recovery procedure will have to be presented. Usually on larger POS infrastructure base and configuration data is provided by replication, so a local base data backup will not be required.

Transaction data backup from EFR is done immediately after each registration into the EFSTA cloud archive, so data loss cannot occur as long as either EFR has an online connection or the local hard disk works without total failure.

5.3 Manual Integration of Documents Lost with Backup Restore

Although a loss of transaction data is highly improbable, the fiscal auditor may ask for the procedure how to proceed after system failure and replacement. After restore of the last backup, a function to manually integrate documents that have been lost may be required to provide a gapless SAF-T export.

For integration of "Lost Documents" please register the original transaction including the additional fields Fiscal Number FN and original Date D:

```
<Tra>
  <ESR TL="001" TT="1" T="0.98" Opr="102" FN="FT 001_1.22/4711" D="2022-01-
02T14:12:00">
    <PosA>
      ...
```

Manual integration will automatically start a new numbering series (see chapter below).

Documents integrated manually are tagged with <SourceBilling>M</SourceBilling> ("manual") in SAF-T, and other reference fields are set according to the regulations.

5.4 Integration from Manual Invoice Book

In case of POS outage the company may use a Manual Invoice Book with prenumbered invoice forms, which have to be manually entered at end of outage.

The transactions are registered being FN the form number and D the original Date:

```
<Tra>
  <ESR TL="001" TT="1" T="0.98" Opr="102" FN="abc/00001" D="2023-07-14T14:12:00">
    <PosA>
      ...
```

Manual integration will automatically start a new numbering series (see chapter below).

According to "ponto 2.4 do Despacho n.º 8632/2014 de 03 de Julho do Diretor Geral da Autoridade Tributária e Aduaneira" Manual Invoice Books can be ordered from a certified printing company. Before, the retailer has to open a manual series in AT Portal to get an ATCUD, which is required by the printing company. The forms are sequentially numbered.

5.5 Daily Closure / Z Reports

A Z-report is a daily closure report that sums totals of different payment methods, returns, voids, etc. At the end of the day, the cash register needs to generate a daily closure and send the EFR a signal that the daily closure has been made.

The Z-report is marked as a non-fiscal signed transaction, with the attribute NFS="Z"

Example:

```
<Tra>
  <ESR TL="01" TT="1" TN="1234" NFS="Z"/>
</Tra>
```

5.6 Numbering Series

The numbering of documents has to be unique within the whole company. For this the ID of the POS system and the document date is used: Transaction Location (business premise) TL="001", Transaction Terminal (POS number on premise) TT="1" with transaction Date D="2022-..." will result in series "001_1.22". The whole Fiscal Number then shows as "FS 001_1.22/1234"

An automatic enumerator reset is performed with each new year (first transaction on January, 1st 2023), giving e.g. "FS 001_1.23/1".

If the system is restored from backup, you eventually may have to enter missing documents (see Manual Recovery of Lost Documents). Then [start new series] on the "Controle" page (<http://localhost:5618/control>), .

5.6.1 Client Certificate for the Software Producer

Software creator certificates will expire and need to be replaced using the following steps. This process only applies when using your own certificate.

Steps:

- please open <http://localhost:5618> page "Controle" and click on "Registration"
- check if NIF (=TaxId) is that of you (the software producer)
- in "Request" enter the certificate subject fields, e.g. "FR, none, Paris, ..."
CN will show your NIF
- then create [new .csr]
- the content of the .csr file (PEM base64 formatted) has to be copied into the request field in the AT portal
- the request will be processed by AT and you will get the public key part via email
- then paste the PEM formatted certificate in the "Registration" page and [create .pfx]

- The .pfx file then will be used as client certificate in the WSDL communication. Another certificate for communication with the test backend is provided by EFR.
- To ensure the EFR can access the certificate, please send it to your efsta Partner so we can add it to our backend system where it will be provided to the EFR

5.5.2 ATCUD

Note: With the recent EFR release (2.6.1), the EFR blocks all transactions before the ATCUD was obtained from the government web service (this may take a bit after username/password were entered into the EFR).

Each document (e.g. Fatura Simplificado) has to show a number prefix, which is issued by the [PT] fiscal authority AT. EFR does the communication automatically on behalf (open or close series) using a web service interface. You will have to configure a login (sub-user/password) in the fiscal portal <https://www.acesso.gov.pt/gestaoDeUtilizadores/criarForm?partID=PFIN>.

Then enter the data on "Controle", [configurar...] login:

RN:	def	Status	Controle	Dados básicos	Perfil	Diário	Licença	Badge:
Login Portal das Finanças								
NIF	980701066	TesteWebservices		Numero de Identificação Fiscal / TaxId				
	Gestão de utilizadores		permitir serviço da web / permit webservices: "WFA - Webservice de comunicação de dados de faturas", "WSE - Comunicação e Gestão de Séries por webservice"					
sub-user	980701066/7	"Utilizador" atribuído por AT, exemplo / sub-user assigned by authority, e.g.: 980701066/1						
password	***	digite a "Senha", se for novo / enter password, if new						
1. test	teste e salve	teste de acesso ao webservice / test webservice access						
2. upload	distribuir	distribuir login na nuvem / share login over cloud						

With [teste e salve] a communication test is performed, on success an encrypted file with the login credentials is created. With [distribuir] you can immediately provide the credentials to all systems belonging to your company. This function is disabled in test mode (before certification).

Open series at AT always can be shown on "Controle", [listar...]:

Último Documento											
NIF	980701066	TesteWebservices		Numero de Identificação Fiscal / TaxId							
TL/TT	8861/1	identificação de caixa / POS identification									
lastD	2023-01-18 19:45:45	última data do documento / last document date									
lastTS	2023-01-18 19:45:45	último carimbo de data / last timestamp									
Série no Portal AT											
serie	tipo Serie	tipo Doc	cod Validacao Serie	num Inicial Seq	seq Ultimo Doc Emitido	data Registo	estado	data Estado	data Inicio Prev Utiliz	nif Comunicou	

Network communication with the AT portal is done with following endpoints:

<https://servicos.portaldasfinancas.gov.pt:422/SeriesWSService> (production) and <https://servicos.portaldasfinancas.gov.pt:722/SeriesWSService> (test)

Please assure that these URLs and ports are appropriate configured on your local firewall.

During certification with the fiscal authority please set "Perfil" "Attributes" "Fiscal_test":

Attributes	Fiscal_test
------------	-------------

This will force communication with the test endpoint.

5.5.3 Automatic New Series

As far as possible opening an new series is done automatically by EFR on following events:

- first transaction on a new (empty) EFR
- first transaction in a new year (e.g. on January 1st)
- first transaction in Manual Integration of Lost Documents (because after hardware failure a new series is required)
- first normal transaction after Manual Integration of Lost Documents

5.6.4 Closing Series

On new series, the old series always are closed automatically.

But if a POS system is taken out of operation, please use the function "Controle", "Serie e ATCUD" [finalizer ativas / close active].

5.7 SAF-T Export

The Portuguese Fiscal Authority "AT" requires at least monthly upload of sales data of all POS systems. This usually is performed from the EFSTA Cloud Portal for the whole company.

During certification and for audit on premise by the Fiscal Authority a local export is required. This can be found on <http://localhost:5618> (open with your browser) under "Controle":

The screenshot shows a web interface titled "Arquivos para baixar". It has a "network" section with a checked checkbox "usa rede?". Below it is a table with columns "Caixa", "EFR", "Host", and "Status". The first row is "8890/1 000000015SN isto OK" and the second row is "8890/7 00000003LLQ 10.30.0.167 OK". To the right of the table is a note: "Para agregar os dados de toda a loja, use a rede / For aggregated store data check 'network'". Below the table are "export.zip" options: "de" (2022-01-01), "em" (2022-12-31), and "começar". At the bottom right, it says "XML de acordo com / according to: SAF-T [PT] 1.04_01".

An export of all POS systems of the business premise is required, so all other EFR systems within the local network (LAN) are shown (for this UDP broadcasting is used, if your systems are not shown properly check your network switch/router/firewall configuration).

By default checkbox "LAN" is checked, so a SAF-T export will include all other POS systems (with matching field Loc.TL, see "Dados básicos").

If LAN=on and a known POS cannot be reached, a warning is shown on the GUI, but the export will be performed:

This screenshot is similar to the previous one, but the second row in the table is highlighted in yellow and the status is "offline". A yellow warning box at the bottom right says "! sem/without 8890/7 export.zip 0.06MB".

5.7.1 REST Implementation

For export use e.g.

GET /control/export?lan=on&from=2022-01-01&till=2022-12-31

Before starting the export please check the current network state with
GET /control/lan

(for XML response instead of JSON set request header Accept=application/xml).

POS systems not accessible are listed with "state":"offline". In case of systems being offline, request a user confirmation that the resulting export will not be complete.

As network reachability can change, the /control/lan result is cached for 60 sec and then will be used in an subsequent export, offline systems will be skipped.

Optional query parameters for /control/export:

&headercomment=... will be exported in <header><HeaderComment>...

&target=... specify a directory path, where the export .xml shall be stored
else, a .zip containing the export file will be sent in response body

6. Special Cases

6.1 Reduced Tax Rates for Madeira, Azores

For Portuguese islands reduced tax rates are valid; extend TaxG with "M" for Madeira and "A" for Azores. For details see "VAT Rates" in Appendix.

For stores in these regions you have to set field TaxGR in "Dados básicos", "Location":

Loc	Localização / Location	
TL	<input type="text" value="001"/>	Número da loja / Store Number
label	<input type="text" value="Funchal"/>	Designação Comercial / BusinessName Nome abreviado da filial
Adr	<input type="text" value="Rua João Chagas, nº 10"/>	Morada detalhada / AddressDetail Deve incluir o nome da rua, número de polícia e andar, se aplicável
City	<input type="text" value="Funchal"/>	Localidade / City
Zip	<input type="text" value="9000-031"/>	Código postal / PostalCode
Ctry	<input type="text" value="PT"/>	Pais / Country
TaxGR	<input type="text" value="Região Autónoma da Madeira"/>	Espaço fiscal / Tax Country Region

6.2 B2B Sales

For sales business-to-business at least the 'NIF' TaxId (with or without leading "PT") of the buyer shall be registered; example:

```
<Tra>
  <ESR T="3.98" TN="1234" Opr="555">
    <Ctm TaxId="PT980701066">
      <PosA>
        ...
```

TaxId PT999999990 ("undefined"/"desconhecido") is ignored and will not trigger a "Fatura".
For further customer data fields see EFR Reference.

6.3 Receipt Layout

The receipt print layout is controlled in /EFR/rn/def/cfg/fiscal.ejs (or .pug). EJS/Pug (ejs.co/pugjs.org) are templating languages to transform JSON data into HTML, afterwards the formatted HTML is rendered for a character font receipt printer.

A basic layout is provided by default, details of print configuration can be found in EFR Reference.

7. Software Certification

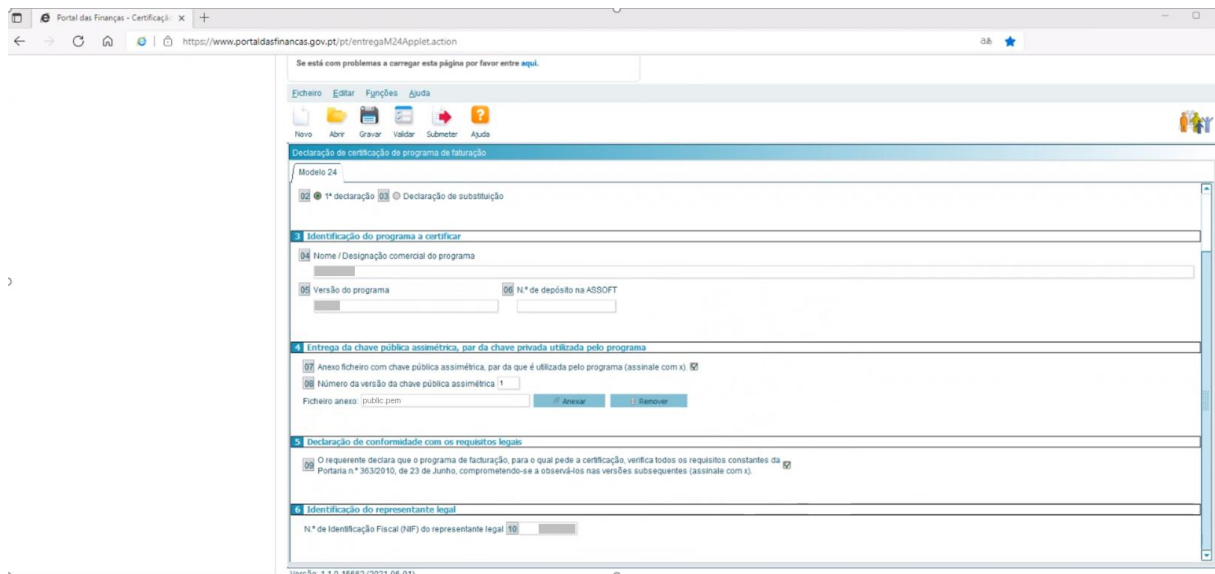
Finally, the POS software has to undergo a certification with the Portuguese fiscal authority AT.

7.1 Prerequisites

For details please contact sales@efsta.eu, EFSTA will accompany you through the preparation phase.

7.2 Initiation at the Fiscal Portal

The fiscal public key file public.pem has to be uploaded (download from page "Controle"):



The screenshot shows a web browser window with the URL <https://www.portaldasfinancas.gov.pt/entregaM24Applet.action>. The page title is "Portal das Finanças - Certificação". The main content is a form titled "Declaração de certificação de programa de faturação". The form is divided into several sections:

- Modelo 24**: Radio buttons for "1ª declaração" (selected) and "Declaração de substituição".
- Identificação do programa a certificar**:
 - Field for "Nome / Designação comercial do programa".
 - Fields for "Versão do programa" and "N.º de depósito na ASSOFT".
- Entrega da chave pública assimétrica, por da chave privada utilizada pelo programa**:
 - Checkbox "Anexo ficheiro com chave pública assimétrica, por da que é utilizada pelo programa (assinale com x)".
 - Field for "Número da versão da chave pública assimétrica".
 - File upload field "Ficheiro anexo: public.pem" with "Anexar" and "Remover" buttons.
- Declaração de conformidade com os requisitos legais**:
 - Checkbox "O requerente declara que o programa de faturação, para o qual pede a certificação, verifica todos os requisitos constantes da Portaria n.º 3632010, de 23 de Junho, comprometendo-se a observá-los nas versões subsequentes (assinale com x)".
- Identificação do representante legal**:
 - Field for "N.º de Identificação Fiscal (NIF) do representante legal".

After registration you will receive an email from your fiscal auditor.

7.3 Data Transfer to the Tax Authority

Part of the Portugal ruleset is to periodically (per day or per month) deliver receipt (invoice) data in SAF-T [PT] 1.04_01 format. An appropriate export function is included in EFR and can be found in the user interface <http://localhost:5618>, page "Controle". By now this is a manual task, further process automation is planned in accordance with the Tax Authority.

Appendix

VAT Rates

Following rates are used by default, if only TaxG is delivered, but no tax rate in TaxA element (/EFR/app/FR/cfg/taxg.cfg):

<i>TaxG</i>	<i>Prc</i>	<i>Description</i>
A	23	Normal
AMA	22	Normal (Madeira)
AAC	18	Normal (Azores)
B	13	Intermédia
BMA	12	Intermédia (Madeira)
BAC	9	Intermédia (Azores)
C	6	Reduzida
CMA	5	Reduzida (Madeira)
CAC	4	Reduzida (Azores)
M01	0	Artigo 16.º n.º 6 do CIVA (ou similar)
M02	0	Artigo 6.º do Decreto-Lei n.º 198/90, de 19 de Junho
M03	0	Exigibilidade de Caixa
M04	0	Isento Artigo 13.º do CIVA (ou similar)
M05	0	Isento Artigo 14.º do CIVA (ou similar)
M06	0	Isento Artigo 15.º do CIVA (ou similar)
M07	0	Isento Artigo 9.º do CIVA (ou similar)
M08	0	IVA – autoliquidação
M09	0	IVA - não confere direito a dedução
M10	0	IVA – Regime de isenção
M11	0	Regime particular do tabaco
M12	0	Regime da margem de lucro – Agências de viagens
M13	0	Regime da margem de lucro – Bens em segunda mão
M14	0	Regime da margem de lucro – Objetos de arte
M15	0	Regime da margem de lucro – Objetos de coleção e antiguidades
M16	0	Isento Artigo 14.º do RITI (ou similar)
M20	0	IVA - Regime forfetário
M99	0	Não sujeito; não tributado (ou similar)

For tax exemptions set the appropriate code in field Pos.TaxG

4.2.1 Motivos de Isenção de IVA

Motivo de isenção ou não liquidação a indicar no campo “1.7.3.4 – Motivo de Isenção (TaxExemptionReason)”:

Código (1.7.3.4)	Menção a constar na fatura	Norma aplicável
M01	<i>Artigo 16.º n.º 6 do CIVA (ou similar)</i>	Artigo 16.º n.º 6 alíneas a) a d) do CIVA
M02	<i>Artigo 6.º do Decreto-Lei n.º 198/90, de 19 de Junho</i>	Artigo 6.º do Decreto-Lei n.º 198/90, de 19 de junho
M03	<i>Exigibilidade de caixa</i>	Decreto-Lei n.º 204/97, de 9 de agosto Decreto-Lei n.º 418/99, de 21 de outubro Lei n.º 15/2009, de 1 de abril
M04	<i>Isento Artigo 13.º do CIVA (ou similar)</i>	Artigo 13.º do CIVA
M05	<i>Isento Artigo 14.º do CIVA (ou similar)</i>	Artigo 14.º do CIVA
M06	<i>Isento Artigo 15.º do CIVA (ou similar)</i>	Artigo 15.º do CIVA
M07	<i>Isento Artigo 9.º do CIVA (ou similar)</i>	Artigo 9.º do CIVA
M08	<i>IVA – autoliquidação</i>	Artigo 2.º n.º 1 alínea i), j) ou l) do CIVA Artigo 6.º do CIVA Decreto-Lei n.º 21/2007, de 29 de janeiro Decreto-Lei n.º 362/99, de 16 de setembro Artigo 8.º do RITI
M09	<i>IVA - não confere direito a dedução</i>	Artigo 60.º CIVA Artigo 72.º n.º 4 do CIVA
M10	<i>IVA – Regime de isenção</i>	Artigo 53.º do CIVA
M11	<i>Regime particular do tabaco</i>	Decreto-Lei n.º 346/85, de 23 de agosto
M12	<i>Regime da margem de lucro – Agências de viagens</i>	Decreto-Lei n.º 221/85, de 3 de julho
M13	<i>Regime da margem de lucro – Bens em segunda mão</i>	Decreto-Lei n.º 199/96, de 18 de outubro
M14	<i>Regime da margem de lucro – Objetos de arte</i>	Decreto-Lei n.º 199/96, de 18 de outubro
M15	<i>Regime da margem de lucro – Objetos de coleção e antiguidades</i>	Decreto-Lei n.º 199/96, de 18 de outubro
M16	<i>Isento Artigo 14.º do RITI (ou similar)</i>	Artigo 14.º do RITI
M20	<i>IVA - Regime forfetário</i>	Artigo 59.º-B do CIVA
M99	<i>Não sujeito; não tributado (ou similar)</i>	Outras situações de não liquidação do imposto (Exemplos: artigo 2.º, n.º 2 ; artigo 3.º, n.ºs 4, 6 e 7; artigo 4.º, n.º 5, todos do CIVA)

SAF-T Payment Group Codes

Source: Diploma - Portaria n.º 302/2016, de 2 de dezembro (4.1.4.20.6.1. Meios de pagamento)

PayG	EFSTA standard	Description	descrição
CC	creditcard	Credit card	Cartão crédito
CD	debitcard	Debit card	Cartão débito

CH	check, cheque	Bank cheque	Cheque bancário
CI		International Letter of Credit	Crédito documentário internacional
CO	voucher	Gift cheque or gift card	Cheque ou cartão oferta
CS	creditnote	Balance compensation in current account	Compensação de saldos em conta corrente
DE	loyalty	Electronic Money, for example, on fidelity or points cards	Dinheiro eletrónico, por exemplo residente em cartões de fidelidade ou de pontos
LC	open	Commercial Bill	Letra comercial
MB	atm	Payment references for ATM	Referências de pagamento para Multibanco
NU	cash,change, refund, foreign	Cash	Numerário
OU	rounding	Other means not mentioned	Outros meios aqui não assinalados
PR	deposit	Exchange of goods	Permuta de bens
TB	mobile	Banking transfer or authorized direct debit	Transferência bancária ou débito direto autorizado
TR	title	Non-wage compensation titles regardless of their support [paper or digital format], for instance, meal or education vouchers, etc.	Títulos de compensação extrassalarial independentemente do seu suporte, por exemplo, títulos de refeição, educação, etc.

SAF-T Document Type Codes

Source: 1.3.8. Códigos para o tipo de documento (Comunicação de Séries Documentais - Aspetos Específicos)

<i>DT</i>	<i>description</i>	<i>descrição</i>
FT	Invoice	Fatura, emitida nos termos do artigo 36.º do Código do IVA
FS	Simplified Invoice issued according to article 40 of the VAT code	Fatura simplificada, emitida nos termos do artigo 40.º do Código do IVA
FR	Invoice-receipt (default)	Fatura-recibo
ND	Debit note	Nota de débito
NC	Credit note (default for negative transaction)	Nota de crédito
GR		Guia de remessa
GT		Guia de transporte
GA		Guia de movimentação de ativos fixos próprios
GC		Guia de consignação
GD		Guia ou nota de devolução
CM		Consultas de mesa
CC		Crédito de consignação

FC		Fatura de consignação
FO		Folhas de obra
NE		Nota de encomenda
OU		Outros
OR		Orçamentos
PF		Pró-forma
RP		Prémio ou recibo de prémio
RE		Estorno ou recibo de estorno
CS		Imputação a cosseguradoras
LD		Imputação a cosseguradora líder
RA		Resseguro aceite
RC		Recibo emitido no âmbito do regime de IVA de Caixa
RG		Outros recibos emitidos

Glossary and Abbreviations

<i>Abbreviation</i>	<i>Description</i>
EFR	EFSTA Fiscal Register
EFSTA	European Fiscal Standards Association (see www.efsta.org)
HTML	Hypertext Markup Language Markup Language for display of digital documents
JSON	JavaScript Object Notation data exchange standard; see also: XML
XML	eXtended Markup Language common formatting standard for data exchange; see also: JSON
AT	Autoridade Tributária e Aduaneira tax authority Portugal
SAF-T	OECD: Standard Audit File - Tax
ApiKey	designation of the partner signature certificate to be used

Document Revision History

<i>Revision</i>	<i>Date</i>	<i>Changes</i>	<i>Version</i>
1.00	2020-09-25	initial version	
1.01	2021-06-16	...	
1.02	2022-03-15	...	
1.03	2022-05-11	Void, ApiKey	
1.04	2022-07-06	Manual Recovery of Lost Documents	
1.05	2022-08-26	Automatic generation of series	
1.06	2022-09-13	SAF-T export for all POS systems on location	
1.07	2023-01-20	ATCUD	
1.08	2023-07-14	Integration from Manual Registration Book	2.3.1
1.09	2023-11-20	added usage variants A / B (SimplePOS)	
1.10	2023-11-21	Pos._=Svc for services, full transaction examples	
1.11	2023-12-04	TaxA recommended in first transaction, full list of ESR.DT	2.3.1.7
1.12	2024-02-02	PayG EFSTA standard	
1.13	2024-06-11	rectification wrong TaxG values for Azores/Madeira AM=>AMA, ...	
1.14	2026-04-27	Nonfiscal Documents, Daily Closure / Z Report	