



# UPUTSTVO ZA PROGRAMERE

Kako odštampati fiskalni račun

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# Brzi vodič – fiskalni račun u 4 koraka

1. Verify PIN
2. Get Environment Parameters
3. Get Status
4. Create Invoice

Na početku rada sa FP-700MX potrebno je izvršiti komande “Verify PIN”, “Get Environment Parameters” i “Get status”, kako bi preuzeli neophodne inicijalne podatke za konkretnog korisnika (poreske stope, server za sinhronizaciju vremena i sl.)

Kreiranje i štampanje računa se nadalje radi komandom “Invoice”.

Dalji opis biće na engleskom jeziku zbog lakšeg prilagođavanja različitim programskim jezicima u kojima su korisničke aplikacije napisane.

## 1. Verify PIN

This service is used to verify a PIN entered by a cashier on a POS. Once the PIN is entered, it is validated using the Secure element on a smart card. The request is sent as plain text and the response is plain text (still application/json HTTP header must be provided).

If the command is successfully executed and the PIN is correct, E-SDC shall return "0100" and remember this PIN in its volatile memory (RAM) for all subsequent operations, until the smart card is removed from the reader or the E-SDC is switched off. Therefore there is no need for POS to send a PIN before every operation, only once it receives the response "0100".

However, if POS receives the error code "1500" during its regular operation, it must use this service again to provide a valid PIN (ask the user for the PIN or other way as per the POS internal policy). This case can be due to a card being removed, a card reader or E-SDC malfunctioning, etc.

In order to verify PIN, E-SDC invokes *Pin Verify* APDU command and passes PIN to the Secure element.

## Endpoint

Endpoint	Example
<code>http://&lt;ESDC_ip_address&gt;:&lt;ESDC_port&gt;/api/v3/pin</code>	<code>http://192.168.88.112:8888/api/v3/pin</code>

## Method

POST

## Header

Add following HTTP headers to each request

- `Accept: application/json`
- `Content-Type: application/json`

## Authentication

FP-700MX does not require client authentication.

## Request

String with PIN code sent from POS. PIN can contain only 4 ASCII digits 0-9.

## Example

1234

## Response Data

A string representation of one of the general [Status and Error Codes](#):

- "0100" - command executed successfully and PIN is correct for the inserted card;
- "2100" - PIN code is wrong for the inserted card. Secure element responded with 0x6302 or 0x6303;
- "2110" - The number of allowed PIN entries exceeded. The card is locked for further use and has to be returned to Tax Office. Secure element responded with 0x6310;
- "1300" - E-SDC detects that the smart card is not inserted (or E-SDC fails to connect to it due to card or card reader issues or some other internal malfunction);
- "2220" - E-SDC cannot connect to the Secure Element applet;
- "2400" - SDC device is not fully configured for invoice signing (i.e. tax rates or verification URL are missing etc.)
- "2806" - If provided PIN is in invalid format, other than ASCII digits 0-9.
- "1999" - E-SDC could not verify PIN, but specific case reason is not determined by error codes. Field *message* may contain more description. Manufacturer can use manufacturer-specific codes to describe warning in more details.

For more information consult [Status and Error Codes](#) sections.

## Example

"0100"

## 2. Get Environment Parameters

Endpoint	Example
<code>http://&lt;ESDC_ip_address&gt;:&lt;ESDC_port&gt;/api/v3/environment-parameters</code>	<code>http://192.168.88.112:8888/api/v3/environment-parameters</code>

### HTTP Method

GET

### Header

Add following HTTP headers to each request

- **Accept:** `application/json`

### Authentication

FP-700MX does not require client authentication.

### Response

Field	Description
<b>organizationName</b>	Name of the tax authority organization
<b>serverTimeZone</b>	Time zone of the server location
<b>street</b>	Tax authority street address
<b>city</b>	Tax authority city
<b>country</b>	Tax authority country
<b>endpoints</b>	List of available endpoints
<b>environmentName</b>	Name of the environment
<b>logo</b>	Link to the tax authority's official logo
<b>ntpServer</b>	NTP server used for time synchronization
<b>supportedLanguages</b>	Supported language(s) for the environment

Example:

```
{
  "organizationName": "Министарство финансија - Пореска управа - Централa",
  "serverTimeZone": "Central Europe Standard Time",
  "street": "Саве Машковића 3-5",
  "city": "Београд",
  "country": "RS",
  "endpoints": {
    "taxpayerAdminPortal": "https://tap.sandbox.suf.purs.gov.rs:443/",
    "taxCoreApi": "https://api.sandbox.suf.purs.gov.rs:443/",
    "vsdc": "https://vsdc.sandbox.suf.purs.gov.rs:443/",
    "root": "https://sandbox.suf.purs.gov.rs:443/v/?v1="
  },
  "environmentName": "СУФ Развој",
  "logo": "https://sandbox.suf.purs.gov.rs:443/DownloadContent/TALogo.png",
  "ntpServer": "http://0.pool.ntp.org:80/",
  "supportedLanguages": [
    "sr-Cyrl-RS",
    "en-US"
  ]
}
```

### 3. Get Status

Endpoint	Example
<a href="http://&lt;E-SDC_ip_address&gt;:&lt;E-SDC_port&gt;/api/v3/status">http://&lt;E-SDC_ip_address&gt;:&lt;E-SDC_port&gt;/api/v3/status</a>	<a href="http://192.168.88.112:8888/api/v3/status">http://192.168.88.112:8888/api/v3/status</a>

#### Method

GET

#### Header

Add following HTTP headers to each request

- **Accept:** `application/json`

#### Authentication

FP\_700MX does not require client authentication.

#### Request

N/A

#### Response

JSON formatted data in accordance with the below table.

Field	Description	Example
<b>isPinRequired</b>	If PIN is not entered, or if a wrong PIN is entered in the previous attempt, this field shall be set to true; otherwise set to false	true
<b>auditRequired</b>	If Audit is required, this field shall be set to true. Audit is required if the Total Amount of all invoices is 75% or more of the Maximum Limit. Maximum Limit and Total Amount are obtained from the Secure element using <a href="#">Amount Status APDU command</a>	False if Total Amount is 1554879 Maximum Limit is 9000000  True If Total Amount is 7504899 Maximum Limit is 10000000
<b>sdcdatetime</b>	Current <b>Local Date and Time</b> in ISO 8601 format	2017-08-30T11:53:05+13:00
<b>lastInvoiceNumber</b>	Invoice number of the last invoice signed by this E-SDC.	ORG674J1-ORG674J1-98637
<b>protocolVersion</b>	Always return 1.0.0.0	1.0.0.0
<b>secureElementVersion</b>	Version obtained from the Secure element using <a href="#">Get Secure Element Version APDU command</a>	1.1.1
<b>hardwareVersion</b>	Manufacturer-specific hardware version, if applicable	1.2.7.21
<b>softwareVersion</b>	Manufacturer-specific software version	1.7.6.5
<b>deviceSerialNumber</b>	Manufacturer-specific serial number of the E-SDC device in format of the <a href="#">Manufacturer Registration Code - MRC</a>	08-0012-ASDJKA1SDJL2A
<b>make</b>	Name of the manufacturer	Acme
<b>model</b>	Manufacturer-specific Model Name	The Device 442
<b>mssc</b>	Manufacturer-specific Errors, Warnings and info messages	Array of error codes
<b>gsc</b>	General Errors, Warnings and info messages defined in the <a href="#">Status and Error Codes</a> section	Array of error codes
<b>supportedLanguages</b>	List of language-culture strings supported by SDC and intercepted with languages supported	en-US; sr-Cyrl-RS

Field	Description	Example
	by specific environment, as per <a href="#">Get Environment Parameters</a>	
<b>uid</b>	UID of the client certificate (V-SDC) or inserted smart card (E-SDC)	TK7SV2AY
<b>taxCoreApi</b>	Root URL of the TaxCore.API targeted by SDC	<a href="https://api.sandbox.taxcore.dti.rs:443/">https://api.sandbox.taxcore.dti.rs:443/</a>
<b>currentTaxRates</b>	An object of currently active tax rates	An object containing validFrom date, group Id and the array of currently active tax categories
<b>allTaxRates</b>	An array of all tax rates	An array containing validFrom date, group Id and tax categories for each group

## Model

```

GetStatusResponse {
  sdcDateTime (string, optional),
  supportedLanguages (Array[string], optional),
  uid (string, optional),
  taxCoreApi (string, optional),
  currentTaxRates (TaxRateGroup, optional),
  allTaxRates (Array[TaxRateGroup], optional)
}

```

## Example:

```

{
  "isPinRequired":true,
  "auditRequired":false,
  "sdcDateTime":"2021-12-16T07:10:07.000",
  "lastInvoiceNumber":"U7LRVVMK-U7LRVVMK-2",
  "protocolVersion":"1.0.0.0",
  "hardwareVersion":"1.0.0.0",
  "secureElementVersion":"1.1.0",
  "softwareVersion":"1.0",
  "mssc":[
    "8001 Paper cover is open",
    "8002 No paper",
    "8003 Device overheat",
    "8004 Paper cutter error",
    "8005 Device low power",
    "9220 Certificate.CNMissing",
    "9221 Certificate.PACMissing",
    "9222 InvoiceAmount.Lower",
    "9923 ExternalStorage.missing",
    "9924 Auditfolder.missing",
    "9925 Auditfolde.missing_or_full",
    "9926 Error.ReadingCERT",
    "9927 Error.DateElapsed",
    "9928 SocketError"
  ],
  "gsc":[
    "1500",
    "0210"
  ],
  "deviceSerialNumber":"10-0001-FP-700MX_000068",
  "make":"INT RASTER",
  "model":"FP-700MX",
  "supportedLanguages":[
    "sr-Cyrl-RS"
  ],
}

```

```

"uid": "U7LRVVMK",
"taxCoreApi": "https://api.sandbox.suf.purs.gov.rs:443/"

"currentTaxRates": {
  "validFrom": "2020-08-03T12:56:56",
  "groupId": 2,
  "taxCategories": [
    {
      "name": "ECAL",
      "categoryType": 0,
      "taxRates": [
        {
          "rate": 5,
          "label": "D"
        },
        {
          "rate": 11,
          "label": "F"
        }
      ],
      "orderId": 1
    },
    {
      "name": "N-TAX",
      "categoryType": 0,
      "taxRates": [
        {
          "rate": 0,
          "label": "N"
        }
      ],
      "orderId": 2
    },
  ],
}
}

```



## 4. Create and print Invoice

Endpoint	Example
http://<ESDC_ip_address>:<ESDC_port>/api/v3/invoices	http://192.168.88.112:8086/api/v3/invoices

### Method

POST

### Authentication

FP-700MX does not require client authentication.

### Request

#### Headers

Add following HTTP headers to each request

- **Accept:** application/json
- **Content-Type:** application/json
- **RequestId:** <RequestId\_value> (Unique identifier of the request, generated by POS system. It is used only for later request search, in case a response was not received. - **optional**)
- **Accept-Language:** <Accept-Language\_value> (The list of one or more languages returned through the field **supportedLanguages** in the [Get Status](#) service response, ordered in POS language preference and separated by semi-colon.)
  - SDC returns Invoice Result in the first supported language from the list
  - if none of the languages from the list are supported by SDC, the SDC returns HTTP status code 406
  - if POs does not submit this parameter, SDC returns Invoice Result in the first language from the list obtained through Get Status service

### Invoice

Field	Optional/ Mandatory	Description
<b>dateAndTimeOfIssue</b>	Optional	Current <b>Local Date and Time</b> in ISO 8601 format. This is an optional element on the API level. However, tax legislation in certain jurisdictions might mandate including it on invoices - so <b>make sure you become familiarized with the requirements in each jurisdiction.</b>
<b>invoiceType</b>	Mandatory	Invoice Type enumeration value: 0 - Normal, 1 - Proforma, 2 - Copy, 3 - Training, 4 - Advance
<b>transactionType</b>	Mandatory	Transaction Type enumeration value: 0 - Sale, 1 - Refund
<b>payment</b>	Mandatory	List of Payments for the invoice, where each Payment defines it's method and amount
<b>cashier</b>	Optional	Cashier's identification.
<b>buyerId</b>	Optional	Unique identification of the buyer/customer. It is <b>mandatory only if there is a legal obligation for buyer identification</b> (in both B2C and B2B transactions); otherwise, it's optional.
<b>buyerCostCenterId</b>	Optional	Cost Center ID provided by the buyer to the cashier or an identification of the invoice purpose. It is <b>mandatory only if there is a legal obligation for invoice purpose identification</b> (in both B2C and B2B transactions); otherwise, it's optional.

Field	Optional/ Mandatory	Description
<b>invoiceNumber</b>	Optional	Invoice number generated by a POS <b>or</b> the software version of the accredited POS. This is an optional element on the API level. However, tax legislation in certain jurisdictions might mandate including it on invoices. <b>Make sure you become familiarized with specific jurisdiction requirements regarding its use and content.</b>
<b>referentDocumentNumber</b>	Mandatory for all Copies and Refunds and some Normal Sale or Advance Sale invoices	Mandatory only in case Invoice Type is <b>Refund</b> , <b>Copy</b> or <b>Advance Sale</b> connected to an Advance Sale (other jurisdiction-specific rules may apply). In all cases, this field must contain Invoice Number of the previously issued invoice. In any other case this field is optional. ASCII, in the <b>requestedBy-signedBy-Ordinal_Number</b> format. Unicode MaxLength: 50
<b>referentDocumentDT</b>	Optional	<b>SDC date and time</b> of the document referenced in the <b>referentDocumentNumber</b> field. It is used to calculate taxes on the date of issue of the original document that is refunded or copied. If it is not provided in the request, SDC uses the currently active tax rates.
<b>items (n)</b>	Mandatory	Each invoice contains at least one Item in Items collection (E-SDC should support minimum 250, recommended up to 500)
<b>options</b>	Optional	Key/value collection defines the output of E-SDC invoice fiscalization, to optimize resources.  Key: <b>omitQRCodeGen</b> Value: "1" to omit QR Code generation by E-SDC and "0" to generate and return QR code to POS. Key: <b>omitTextualRepresentation</b> Value: "1" to omit generation of textual representation by E-SDC and "0" to generate return textual representation to POS.

## Item

Each Item represents one line item on the invoice.

Field	Optional/ Mandatory	Description
<b>gtin</b>	Optional	Global Trade Item Number (GTIN) is an identifier for trade items, incorporated the ISBN, ISSN, ISMN, IAN (which includes the European Article Number and Japanese Article Number) and some Universal Product Codes, into a universal number space.
<b>name</b>	Mandatory	Human-readable name of the product or service.
<b>quantity</b>	Mandatory	The quantity of an item, with a maximum of 3 decimals. Example: 2 (pieces), 0.100 (grams).
<b>unitPrice</b>	Mandatory	Unit price of the line item. It does not take part in tax calculation.
<b>Labels</b>	Mandatory	The array of labels. Each Label represents one of the Tax Rates applied on the invoice item. Tax Items are calculated based on totalAmount and applied labels as described in the Calculate Taxes section. This field is mandatory (i.e. the caller must submit a non-empty collection) for each item, even when the price is 0.00.
<b>totalAmount</b>	Mandatory	Gross price for the line item.

## Payment

Field	Optional/Mandatory	Description
<b>amount</b>	Mandatory	Decimal amount of the payment
<b>paymentType</b>	Mandatory	Payment Type enumeration value: 0 - Other, 1 - Cash, 2 - Card, 3 - Check, 4 - Wire Transfer, 5 - Voucher, 6 - Mobile Money

## Model

```
InvoiceRequest {
  dateAndTimeOfIssue (string, optional),
  cashier (string) Unicode MaxLength:50,
  buyerId (string, optional) ASCII MaxLength:20,
  buyerCostCenterId (string, optional) Unicode MaxLength:50,
  invoiceType (string) = ['Normal', 'ProForma', 'Copy', 'Training', 'Advance'] (int) =
  [0,1,2,3,4],
  transactionType (string) = ['Sale', 'Refund'] (int) = [0,1],
  payment (Array[Payment]),
  invoiceNumber (string, optional) Unicode MaxLength:60,
  referentDocumentNumber (string, optional),
  referentDocumentDT (string, optional),
  options (inline_model, optional),
  items (Array[Item])
}
Payment {
  amount (number),
  paymentType (string) = ['Other', 'Cash', 'Card', 'Check', 'WireTransfer', 'Voucher',
'MobileMoney'] (int) = [0,1,2,3,4,5,6]
}
inline_model {
omitQRCodeGen (string, optional) = ["0", "1"],
omitTextualRepresentation (string, optional) = ["0", "1"]
}
Item {
  gtin (string, optional) MinLength:8 MaxLength:14,
  name (string) Unicode MaxLength:2048,
  quantity (number) Decimal(14,3) MinValue:0.001,
  labels (Array[string]) MinLength:1,
  unitPrice (number) Decimal(14,2),
  totalAmount (number) Decimal(14,2)
}
```

## Response

### Headers

The following HTTP headers shall be returned in response

- **RequestId:** <RequestId from Request HTTP Headers>

### Data Fields

Field	Description
<b>requestedBy</b>	UID of client's Secure Element digital certificate.
<b>signedBy</b>	UID of SDC's Secure Element digital certificate.
<b>sdcdatetime</b>	Local date and time in ISO 8601 format provided by E-SDC.
<b>invoiceCounter</b>	Invoice Counter in format <b>transactionTypeCounter/totalCounter</b> <b>invoiceCounterExtension</b> For Example: 14/17NS

Field	Description
<b>invoiceCounterExtension</b>	First letters of Invoice Type and Transaction Type of the invoice. NS for Normal Sale, CR – Copy Refund, TS – Training Sale, etc.
<b>invoiceNumber</b>	SDC Invoice Number in format <b>requestedBy-signedBy-totalCounter</b>
<b>verificationUrl</b>	VerificationURL generated in the <i>Create Verification URL</i> process
<b>verificationQRCode</b>	Base64 encoded byte array of GIF image created in the <b>Create QR Code</b> process
<b>journal</b>	Textual Representation of the invoice created in the <i>Create a Textual Representation of an Invoice (Receipt)</i> process
<b>totalCounter</b>	Total number of invoices signed by Secure Element. Returned by <i>Sign Invoice</i> APDU command
<b>transactionTypeCounter</b>	Total number of invoices for a requested type. Returned by <i>Sign Invoice</i> APDU command
<b>totalAmount</b>	Sum of all Items – total payable by the customer
<b>encryptedInternalData</b>	Base64 encoded byte array returned by <i>Sign Invoice</i> APDU command
<b>signature</b>	Base64 encoded byte array returned by <i>Sign Invoice</i> APDU command
<b>taxItems</b>	Array of TaxItem entities
<b>businessName</b>	Taxpayer Business Name obtained from digital certificate subject field
<b>locationName</b>	Location Name obtained from digital certificate subject field
<b>address</b>	Street address obtained from digital certificate subject field
<b>tin</b>	Tax Identification Number obtained from digital certificate subject field
<b>district</b>	District obtained from digital certificate subject field
<b>taxGroupRevision</b>	Revision of taxes used in the calculation
<b>mrc</b>	<a href="#">Manufacturer Registration Code</a> is mandatory for audit package sent to the tax authority database, but it's optional for invoice response sent to POS. It always has the format <b>MakeCode-SoftwareVersionCode-DeviceSerialNumber</b> . Explanation: <b>MakeCode</b> -unique 2 characters received from the tax authority during accreditation. <b>SoftwareVersionCode</b> - unique 4 characters received from the tax authority during accreditation. <b>DeviceSerialNumber</b> - manufacturer serial number (max 32 characters) for each E-SDC installation. All 3 elements of MRC are mandatory.
<b>messages</b> (optional)	Custom human-readable message that shall be printed or displayed by POS.

## TaxItem

TaxItem represents tax liability on the invoice per one tax category.

Field	Description
<b>label</b>	Tax Label (A, F, G, N, P...)
<b>categoryName</b>	Tax Category Name (e.g. VAT, Consumption)
<b>categoryType</b>	Tax Category Type (0 - Tax on net, 1 - Tax on total, 2 - Amount per quantity)
<b>rate</b>	Tax rate percentage for Label (i.e. 12.50%)
<b>amount</b>	Tax amount calculated by E-SDC during invoice fiscalization

## Model

```
InvoiceResult {
  requestedBy (string, optional),
  sdcDateTime (string),
  invoiceCounter (string, read only),
  invoiceCounterExtension (string, optional),
  invoiceNumber (string, read only),
  taxItems (Array[TaxItem], optional),
  verificationUrl (string, optional),
  verificationQRCode (string, optional),
  journal (string, optional),
  messages (string, optional),
  signedBy (string),
  encryptedInternalData (string),
  signature (string, optional),
  totalCounter (integer, optional),
  transactionTypeCounter (integer, optional),
  totalAmount (number, optional),
  taxGroupRevision (integer, optional),
  businessName (string, optional),
  tin (string, optional),
  locationName (string, optional),
  address (string, optional),
  district (string, optional),
  mrc (string, optional)
}
TaxItem {
  categoryType (integer, optional),
  label (string),
  amount (number),
  rate (number),
  categoryName (string)
}
```

## 1. [Normal Sale](#)

This is an example of Normal Sale Invoice

### Request

#### Header

RequestId: 4c5730b50eb7b50e7a0292600a67ce16

#### Body

```
{
  "dateAndTimeOfIssue": "2020-12-08T08:55:23.286Z",
  "cashier": "123456789",
  "buyerId": "RS34564565",
  "buyerCostCenterId": "567546",
  "invoiceType": "Normal",
  "transactionType": "Sale",
  "payment": [
    {
      "amount": 70.00,
      "paymentType": "Cash"
    }
  ],
  "invoiceNumber": "POS2017/998",
  "referentDocumentNumber": "",
  "options": {
    "omitQRCodeGen" : "1" ,
    "omitTextualRepresentation" : "0"
  },
  "items": [
    {
      "name": "Sport-100 Helmet, Blue",
      "quantity": 2,
      "unitPrice": 34.23,
      "labels": [
        "A"
      ],
      "totalAmount": 68.46
    }
  ]
}
```

### Response

#### Header

RequestId: 4c5730b50eb7b50e7a0292600a67ce16

#### Body

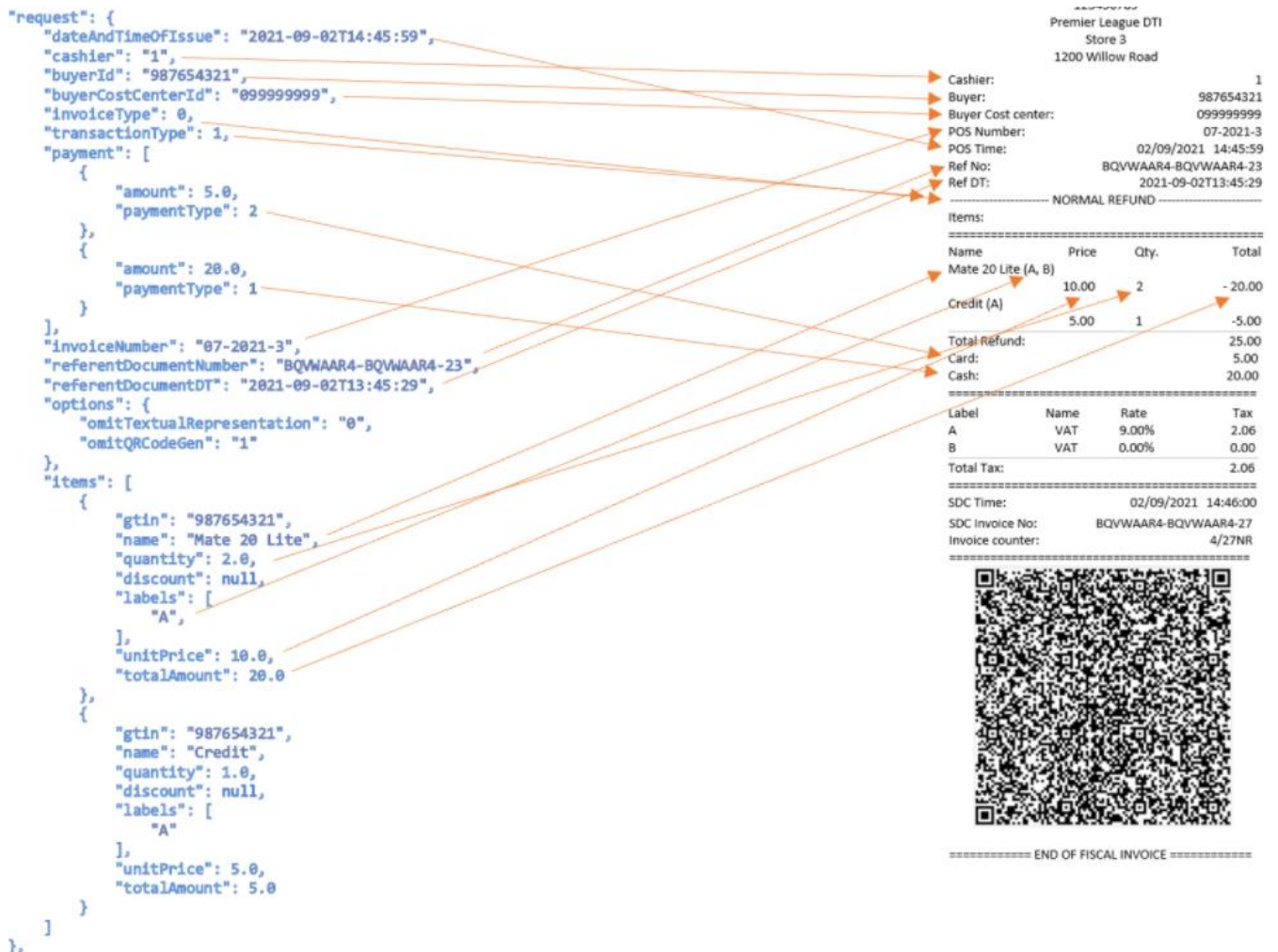
```
{
  "requestedBy": "WHKV8WJH",
  "sdcDateTime": "2020-12-09T01:51:43.1847161+12:00",
  "invoiceCounter": "6/16NS",
  "invoiceCounterExtension": "NS",
  "invoiceNumber": "WHKV8WJH-GFB38T00-16",
  "taxItems": [
    {
      "categoryType": 0,
      "label": "A",
      "amount": 5.6527,
      "rate": 9,
      "categoryName": "VAT"
    }
  ],
}
```

```

"verificationUrl":
"https://frontendui.test.taxcore.dti.rs/v/?vl=AldIS1Y4V0pIR0ZCMzhUTzAQAAAABgAAADhyCgAAAAAAAAABdkKfR1A
AAABqij704IyBt75rU5DJ4m3jgOpsTwrIGH1%2BPj2xpA2vddwxGAfP4gTWhqCZSupW5yMziBUia%2FzbVUhbtAHDeevopB2Spjgn
510r97ZXWzG7Jai8G%2B%2Fu74X2481KY5%2BYJ4ABtFEhCaQNgN4QXU%2FU2DpLsuyjOiaz8AoZFLaReEBiZFiMwrtUtZtTioQn7
pQB6u%2FH2bYWaTGXq5sJ07vRLK9r99YIyvweCgPLmnmOuzz363mA3T1PX%2Bov49x869TIC%2BACsqCW5SzlZax0n1NBheSNXD7v
w03p7K%2BgBs31NsrBwBx4DdEAN3YMq2%2F6db2j9tiu6Vkf09WMxIsBtXIyVP6kYE6eOSCgZaz%2FeCVzeLQHvD02zWBBEOxFnQh
FRiY1jNmaEbHi%2B7j910%2FvXd47ui6qvKtYp%2BpahbbRZULW9kmqxyxbIzxhdNxH1tOPFKx8A5smljVvc1Hn8Iu6bt2IRnEesp
nmjha81okRxs1V2eTicw%2FU3%2B9P9GC236XAVjLURtJDiHS3RB58tyWgyBi10TI7p8xKfcN7JH%2B%2FJ%2FyiM6%2Bn9UCzMcw
yMddwTcun%2BTofbN747so2onz2ZADSROyJfaEWgzI7GwrjrEx6YwGba4HtzwP4aqH8DWIdiuI6ziC4jnvZN8jvwK9JNBmz9YA1c6
%2BmlloiXxvhBcGlcYRwb16oLg%3D%3D",
"verificationQRCode": null,
"journal": "===== FISCAL INVOICE =====\r\n
TIN: HIHKLIKJ\r\n
Company: Fiskalizacija doo\r\n
Store: Fiskalizacija doo\r\n
Address: Milinka Milinkovica 44\r\n
District: Vinca\r\n
Cashier TIN: 123456789\r\n
POS Number: POS2017/998\r\n
POS Time: 08/12/2020 08:55:23\r\n
-----NORMAL SALE-----\r\n
Items\r\n
=====
Name Price Qty. Total\r\n
Sport-100 Helmet, Blue (A) \r\n
34.23 2 68.46\r\n
-----
Total Purchase: 68.46\r\n
-----
Cash: 70.00\r\n
=====
Label Name Rate Tax\r\n
A VAT 9.00% 5.65\r\n
-----
Total Tax: 5.65\r\n
=====
SDC Time: 09/12/2020 01:51:43\r\n
SDC Invoice No: WHKV8WJH-GFB38T00-16\r\n
Invoice Counter: 6/16NS\r\n
=====
===== END OF FISCAL INVOICE =====\r\n",
"messages": "Success",
"signedBy": "GFB38T00",
"encryptedInternalData":
"aoo+90CMgbe+a1QOyeJt44DqbE8KyBh9fj49saQNr3XcMRgHz+IE1oagmebqVucjM4gVCGv821VIW7QBw3nr6KQdkqY4J+ZTq/e2
V1sxuyWovBvv7u+F9uPJSmOfmCeAAbRRIQmKDyDeEF1P1Ng6S7Lsozoms/AKGRS2kXhAYmRYjFq7VLWbU4qEJ+6UAervx9m2Fmkx1
6ubCTu70Syva/fWCMr8HgoDy5p5jrs89+t5gN05T1/qL+PcfOvUyAvgArKgluUsy2WsdJ5TQYXkjVw+78NN6eyvoAbN9TbKwcAceA
3RADd2DKtv+nW9o/bYrulZH9PVjMSLabVyMlT+pA==",
"signature":
"YE6eOSCgZaz/eCVzeLQHvD02zWBBEOxFnQhFRiY1jNmaEbHi+7j910/vXd47ui6qvKtYp+pahbbRZULW9kmqxyxbIzxhdNxH1tOP
FKx8A5smljVvc1Hn8Iu6bt2IRnEespnmjha81okRxs1V2eTicw/U3+9P9GC236XAVjLURtJDiHS3RB58tyWgyBi10TI7p8xKfcN7J
H+/J/yiM6+n9UCzMcwMddwTcun+TofbN747so2onz2ZADSROyJfaEWgzI7GwrjrEx6YwGba4HtzwP4aqH8DWIdiuI6ziC4jnvZN8
jvwK9JNBmz9YA1c6+mlloiXxvhBcGlcYRwb16oLg==",
"totalCounter": 16,
"transactionTypeCounter": 6,
"totalAmount": 68.46,
"taxGroupRevision": 2,
"businessName": "Shtelovanje doo",
"tin": "HIHKLIKJ",
"locationName": "Shtelovanje doo",
"address": "Milinka Milinkovica 44",
"address": "Vinca",
"mrc": "99-0100-GFB38T00"
}

```





The following examples :

2. [Normal Refund](#)  
This is an example of Normal Refund
3. [Advance Sale](#)  
This is an example of Advance Sale Invoice
4. [Advance Refund](#)  
This is an example of Advance Refund.
5. [Copy Sale](#)  
This is an example of Copy Sale
6. [Copy Refund](#)  
This is an example of Copy Refund
7. [Proforma Sale](#)  
This is an example of Proforma Sale
8. [Proforma Refund](#)  
This is an example of Proforma Refund
9. [Training Sale](#)  
This is an example of Training Sale
10. [Training Refund](#)  
This is an example of Training Refund

you can find here:

<https://tap.sandbox.suf.purs.gov.rs/Help/view/1672078854/Create-Invoice/en-US>



## Dodatne komande

### Isključivanje / uključivanje automatske štampe fiskalnog računa

Method: **POST**

URL: **"/api/datecs/post\_settings"**

Primer JSON:

```
{
  "auto_print": 1
}
```

Parametar (body):

1, "1" or "true" → uključi auto-print fiskalnog računa (String or Int)

0, "0" or "false" → isključi auto-print fiskalnog računa (String or Int)

---

### Štampanje slobodnog teksta

Method: **POST**

URL: **"/api/datecs/post\_free\_text"**

Primer JSON:

```
{
  "text":
    "===== ФИСКАЛНИ РАЧУН =====\r\n
      103198263                \r\n
      INT RASTER D.O.O.        \r\n
      INT RASTER D.O.O.        \r\n
      Toše Jovanovića 11        \r\n
      Београд                  \r\n
      Чукарица                  \r\n
      Касир:                    Vladan\r\n
      ЕСИР број:                129/1.0\r\n
      ИД купца:                 57657656\r\n
      Опционо поље купца:      Т-657656\r\n
      ----- ПРОМЕТ ПРОДАЈА -----\r\n
      Артикли \r\n
      =====\r\n
      Назив      Цена      Кол.      Укупно\r\n
      Соса Cola 2 lit. PVC (A) /ком      \r\n
      120.00      2        240.00\r\n
      -----\r\n
      За уплату:                240.00\r\n
      Готовина:                 100.00\r\n
      Платна картица            200.00\r\n
      Повраћај:                 60.00\r\n
      =====\r\n
      Ознака      Име      Стопа      Порез\r\n
      А            VAT      9.00%      40.00\r\n
    "
```

```

-----\r\n
Укупан износ пореза:          40.00\r\n
=====
ПФР време:          01.03.2022. 11:00:22\r\n
ПФР број:          DX7SFSW9-DX7SFSW9-26\r\n
Бројач рачуна:          19/26ПП\r\n
=====
===== КРАЈ ФИСКАЛНОГ РАЧУНА =====\r\n",

"qr": "https://sandbox.suf.purs.gov.rs/v/?
v1=A0RYN1NGU1c5RFg3U0ZTVzkaAAAAEwAAAGBbAwAAAAAABf0TsdvAAAAG1NzY1NzY1NpdxbnhjBDAA0HAIYY
%2FZ4XXhXmnIHfkaq9jxFym14FLaDozyJJ96A5H%2FVpfs9bHfYHny0K08GGwoUvd7wSqyh%2BU7j
%2FDvn9OXcUPHM%2BwVhOcS7qGBs0iQFD2Uz2k6T60401B%2FQ1FC5FIE7Q2KyHol9w%2FOQFp0krclKtrw
%2FucXQBsQQ4u2Q8HfFX08B0%2FgJyEluwY5AByaKvUCh6nhh9Y4WLTgE0RdeA9pe
%2FMPoRdGDib0sWz7bRHjvAGsaNjovzAraTx3Ar%2FcEzzoL5svuQrMYft6%2FCXpm2GQG
%2F4XAJL7NXBcgu48sEqGSXFPcNCr0I8NlulecRlS5sAfOMRnfltnXQKKiE%2BaEmhruJUV083WGthwXfyldLsMew
%2FFtxiGU%2FRjkMkgQZCvvB%2B1LAdAUjSmelJrhRhwm44G%2B0S%2BtjtGHry%2FNmU%2FBR%2FXoa
%2FFgaSvDbBFjka7YX6WVK7iAPqGopDYZ0X4tvcu7m6%2FF%2BWvK%2BA9fN98aED6%2Bdf9gCK1DMJ7EVgcIZS
%2BJSYd2y9VPqu6NE7ILJK2cImCv2c72YPDhkdfeDmyG3I7aZoRdtg7nydMT4VwB4itFbDH6MGUyRmL9RT5NR24rh
yi%2B57z6JTr%2F1lZ8587NLzZyAyJxIorFQSWk0EF7uboXP
%2BMA2g5%2FfrOmznyowNs53UiYBcx4qxl4csRiUgzB6jlb28KvUUsh7rWG4LxYg%3D%3D"
}

```

#### Parametar (body):

“text” – tekst koji šalјemo na štampu. Svaki red se mora završavati sa “\r\n” (String)  
 Dužina reda je 40 karaktera (za termo rolnu 58mm) ili 48 karaktera (za termo rolnu 80mm – model FP-700MX)  
 Poslednji red teksta (u ovom primeru: =====KRAJ FISKALNOG RACUNA===) se štampa ispod QR koda, ukoliko je naveden.

Moguće je štampati **bold**, *italic*, underline, **DOUBLE HEIGHT** i **DOUBLE WIDHT**:

Primer:

```

"text": "@1@BOLD@1@\r\n@2@ITALIC@2@\r\n@3@UNDERLINE@3@\r\n@4
@DOUBLE HEIGHT@4@\r\n^D^O^U^B^L^E^ ^W^I^D^T^H\r\n"

```

“qr” – tekst koji se konvertuje u QR kod (String)

Mogu se zadati istovremeno polja “text” i “qr”, ali i pojedinačno.

Napomena: za štampu freetext-a automatska štampa fiskalnog računa mora biti isključena (“auto\_print”:0)

---

## Prikaz informacija na eksternom displeju (za model FP-700MX)

Method: **POST**

URL: **"/api/datecs/ex\_disp\_ctrl"**

Primer JSON:

```
{
  "exDisplayTopRow": "Dobar dan!",
  "exDisplayBotRow": "Kasa je slobodna"
}

{
  "exDisplayTopRow": "Upaceno: 2000.00",
  "exDisplayBotRow": "Kusur:1200.00"
}
```

Parametar (body):

“exDisplayTopRow” – tekst koji prikazujemo u gornjem redu, maks. 20 karaktera . (String)

“exDisplayBotRow” - tekst koji prikazujemo u donjem redu, maks. 20 karaktera . (String)

Slanje praznog stringa briše prikaz na displeju.

Napomena: Podržani su displeji DPD-201 i DPD-501, korišćeni na prethodnim modelima fiskalnih štampača FP-550 i FP-600.

---

## Otvaranje fioke (za model FP-700MX)

Method: **POST**

URL: **"/api/datecs/open\_drawer"**

Ovaj request ne sadrži body.