

Primer slanja XML na NBS (Narodnu Banku Srbije) SOAP server za dobijanje liste deviznih kurseva
Example of sending XML to NBS (National Bank of Serbia) SOAP server to get a list of exchange rates

SOAP envelope is XML string:

strEnvelope =

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <AuthenticationHeader xmlns="http://communicationoffice.nbs.rs">
      <UserName>cobasystems</UserName>
      <Password>coba1949</Password>
      <LicenceID>192c1004-6cd9-491f-b29d-c4e0ee841b12</LicenceID>
    </AuthenticationHeader>
  </soap:Header>
  <soap:Body>
    <GetCurrentExchangeRate xmlns="http://communicationoffice.nbs.rs">
      <exchangeRateListTypeID>3</exchangeRateListTypeID>
    </GetCurrentExchangeRate>
  </soap:Body>
</soap:Envelope>
```

SOAP zahtev za XML fajl sa listom trenutnih vrednosti valuta prema RSD

SOAP request for an XML file with a list of currency values according to RSD

```
SOAP_server := ;
"https://webservices.nbs.rs/CommunicationOfficeService1_0/CurrentExchangeRateXmlService.asmx"
SOAP_Action := ;
"http://communicationoffice.nbs.rs/GetCurrentExchangeRate"
oHC := HttpClient().new( SOAP_server )
oHC:setTimeout(,10000,,10000)
// oHC:setAcceptCharSet("iso-8859-1") // NBS works with "iso-8859-1"
// oHC:setAcceptCharSet("utf-8") // NBS does not work with "utf-8"
oHC:httpRequest:setHeader( "Content-Type", "text/xml" )
oHC:httpRequest:setHeader( "SOAPAction", SOAP_Action )
oHC:httpRequest:setMethod( "POST" )
oHC:httpRequest:setContent( strEnvelope )
cResult := oHC:send()
nStatus := oHC:getStatusCode()
oHC:disconnect()

* Important:
* cResult contains characters &lt; and &gt;
* Just replace &lt; with < and &gt; with >
cResult:=strtran(cResult,"&lt;","<")
cResult:=strtran(cResult,"&gt;",">")

* Important:
* cResult contains both Serbian Latin characters and Serbian Cyrillic characters
* cResult:=UTF82Char(cResult) // ne može se ovo koristiti // This cannot be used.
  * ovo radi - prevodi utf-8 serbian ćirilicu u Latin1250 serbian latinicu
  * this works - translates utf-8 serbian cyrillic to utf-8 serbian latin
  cResult:=UTF8_TO_Latin1250(cResult)

// view http status
msgbox(var2char(nStatus),"STATUSCODE")
// view http cResult XML file
DC_MEMOEDIT(cResult)
// or
memowrit("t2.xml",cResult)
runshell("t2.xml","notepad.exe")
```

Content t2.xml

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <GetCurrentExchangeRateResponse xmlns="http://communicationoffice.nbs.rs">
      <GetCurrentExchangeRateResult><ExchangeRateDataSet>

        <ExchangeRate>
          <ExchangeRateListNumber>52</ExchangeRateListNumber>
          <Date>20.03.2025</Date>
          <CreateDate>20.03.2025</CreateDate>
          <DateTo>31.12.4172</DateTo>
          <ExchangeRateListTypeID>3</ExchangeRateListTypeID>
          <CurrencyGroupID>2</CurrencyGroupID>
          <CurrencyCode>978</CurrencyCode>
          <CurrencyCodeNumChar>978</CurrencyCodeNumChar>
          <CurrencyCodeAlfaChar>EUR</CurrencyCodeAlfaChar>
          <CurrencyNameSerCyr1>Evro</CurrencyNameSerCyr1>
          <CurrencyNameSerLat>Evro</CurrencyNameSerLat>
          <CurrencyNameEng>Euro</CurrencyNameEng>
          <CountryNameSerCyr1>EMU</CountryNameSerCyr1>
          <CountryNameSerLat>EMU</CountryNameSerLat>
          <CountryNameEng>EMU</CountryNameEng>
          <Unit>1</Unit>
          <BuyingRate>0.0000</BuyingRate>
          <MiddleRate>117.2220</MiddleRate>
          <SellingRate>0.0000</SellingRate>
          <FixingRate>0.000000</FixingRate>
        </ExchangeRate>

        <ExchangeRate>
          <ExchangeRateListNumber>52</ExchangeRateListNumber>
          <Date>20.03.2025</Date>
          <CreateDate>20.03.2025</CreateDate>
          <DateTo>31.12.4172</DateTo>
          <ExchangeRateListTypeID>3</ExchangeRateListTypeID>
          <CurrencyGroupID>3</CurrencyGroupID>
          <CurrencyCode>36</CurrencyCode>
          <CurrencyCodeNumChar>036</CurrencyCodeNumChar>
          <CurrencyCodeAlfaChar>AUD</CurrencyCodeAlfaChar>
          <CurrencyNameSerCyr1>Australijski dolar</CurrencyNameSerCyr1>
          <CurrencyNameSerLat>Australijski dolar</CurrencyNameSerLat>
          <CurrencyNameEng>Australian Dollar</CurrencyNameEng>
          <CountryNameSerCyr1>Australija</CountryNameSerCyr1>
          <CountryNameSerLat>Australija</CountryNameSerLat>
          <CountryNameEng>Australia</CountryNameEng>
          <Unit>1</Unit>
          <BuyingRate>0.0000</BuyingRate>
          <MiddleRate>68.1840</MiddleRate>
          <SellingRate>0.0000</SellingRate>
          <FixingRate>0.000000</FixingRate>
        </ExchangeRate>

        ...

      </ExchangeRateDataSet>
    </GetCurrentExchangeRateResult>
  </GetCurrentExchangeRateResponse>
</soap:Body></soap:Envelope>
```

Test iz programa POSTMAN zahteva da heder sadrži sledeće podatke:
The program POSTMAN test requires that the header contains the following data:

Header:

1. Content-Type text/xml
2. SOAPAction <http://communicationoffice.nbs.rs/GetCurrentExchangeRate>
3. Host webservices.nbs.rs
4. User -Agent Linkon NBS Client
5. Content-Length 697

Napomena za Content-Length - broj bajtova u SOAP envelopi (body) iznosi 697 bajtova.
Note for Content-Length - the number of bytes in the SOAP envelope (body) is 697 bytes.

Body - SOAP Envelopa (type XML):

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <AuthenticationHeader xmlns="http://communicationoffice.nbs.rs">
      <UserName>cobasystems</UserName>
      <Password>coba1949</Password>
      <LicenceID>192c1004-6cd9-491f-b29d-c4e0ee841b12</LicenceID>
    </AuthenticationHeader>
  </soap:Header>
  <soap:Body>
    <GetCurrentExchangeRate xmlns="http://communicationoffice.nbs.rs">
      <exchangeRateListTypeID>3</exchangeRateListTypeID>
    </GetCurrentExchangeRate>
  </soap:Body>
</soap:Envelope>
```

cResult (XML file):

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
3   <soap:Body>
4     <GetCurrentExchangeRateResponse xmlns="http://communicationoffice.nbs.rs">
5       <GetCurrentExchangeRateResult>&lt;ExchangeRateDataSet&gt;
6         &lt;ExchangeRate&gt;
7           &lt;ExchangeRateListNumber&gt;51&lt;/ExchangeRateListNumber&gt;
8           &lt;Date&gt;19.03.2025&lt;/Date&gt;
9           &lt;CreateDate&gt;19.03.2025&lt;/CreateDate&gt;
10          &lt;DateTo&gt;31.12.4172&lt;/DateTo&gt;
11          &lt;ExchangeRateListTypeID&gt;3&lt;/ExchangeRateListTypeID&gt;
12          &lt;CurrencyGroupID&gt;2&lt;/CurrencyGroupID&gt;
13          &lt;CurrencyCode&gt;978&lt;/CurrencyCode&gt;
14          &lt;CurrencyCodeNumChar&gt;978&lt;/CurrencyCodeNumChar&gt;
15          &lt;CurrencyCodeAlfaChar&gt;EUR&lt;/CurrencyCodeAlfaChar&gt;
16          &lt;CurrencyNameSerCvrl&gt;F&lt;/CurrencyNameSerCvrl&gt;
```

Kod HTTPClient() nisu obavezni, a mogu se zadati:

With HTTPClient() they are not mandatory, but can be specified:

```
Host      webservices.nbs.rs
User-Agent Linkon NBS Client
Content-Length 697
```

Ovo nije obavezno - This is not required.

```
oHC:setAcceptType("text/xml")
oHC:setAcceptCharSet("utf-8")
oHC:httpRequest:setHeader("User-Agent", "Linkon NBS Client")
oHC:httpRequest:setHeader("Host", "webservices.nbs.rs")
oHC:httpRequest:setHeader("Content-Lenght", "697")
```

DODATAK ZA RESTFULL WEB SERVIS I Alaska Xbase++ HTTPClient() - PRIMERI ADD-ON FOR RESTFUL WEB SERVICES AND Alaska Xbase++ HTTPClient() - EXAMPLE

----- 1

PRIMER SLANJA XML NA SEF - KOD SLANJA ELEKTRONSKE FAKTURE NA SEF
EXAMPLE OF SENDING XML TO SEF - WHEN SENDING AN ELECTRONIC INVOICE TO SEF

POŠALJI NA SEF XML FAJL IZDATE ELEKTRONSKE FAKTURE ZA KUPCA
SEND TO SEF XML FILE OF ISSUED ELECTRONIC INVOICES FOR THE BUYER

**CURL := "https://demoefaktura.mfin.gov.rs/api/publicApi/sales-
invoice/ubl?requestId=31051979&sendToCir=No"**

APIKEY := "75073f2e-87ef-4a35-adac-c422492b2f17"

```
//-----
// Send XML to SEF      (RESTFUL WEB SERVICE MINISTRY OF FINANCE)
//-----
oHC := HttpClient():new( CURL )      // open a new instance
oHC:setTimeout(,10000,,10000)         // timeout
oHC:setAcceptType( "text/plain" )     // text or XML or JSON
oHC:httpRequest:setHeader( "Apikey", APIKEY ) // variable API KEY
oHC:httpRequest:setHeader( "Content-Type", "application/xml" ) // sending XML
oHC:httpRequest:setMethod( "POST" )   // determine the method POST, GET itd...
oHC:httpRequest:setContent( XML_file ) // XML utf-8 string content
cResponse := oHC:send()                // response XML utf-8 string
nStatus := oHC:getStatusCode()         // numeric: successfully=200,
oHC:disconnect()                      // unsuccessfully<>200
```

----- 1

----- 2

PRIMER PREUZIMANJA XML SA SEF - KOD PREUZIMANJA ELEKTRONSKE FAKTURE SA SEF
EXAMPLE OF DOWNLOADING XML FROM SEF - DOWNLOADING ELECTRONIC INVOICE FROM SEF

PREUZMI SA SEF XML FAJL ZA PRIMLJENU ELEKTRONSKU FAKTURU OD DOBAVLJAČA
DOWNLOAD FROM SEF THE XML FILE FOR THE ELECTRONIC INVOICE RECEIVED FROM THE SUPPLIER
cURL:="https://demoefaktura.mfin.gov.rs/api/publicApi/purchase-invoice/xml?invoiceId=56789"

PREUZMI SA SEF XML FAJL ZA IZDATU ELEKTRONSKU FAKTURU ZA KUPCA
DOWNLOAD FROM SEF XML FILE FOR ISSUED ELECTRONIC INVOICE FOR BUYER
cURL:="https://demoefaktura.mfin.gov.rs/api/publicApi/sales-invoice/xml?invoiceId=6789011"
//-----
// Get XML from SEF (RESTFUL WEB SERVICE MINISTRY OF FINANCE)
//-----
oHC := HttpClient():new(**cURL**)
oHC:setTimeout(,10000,,10000)
oHC:httpRequest:setHeader("Accept", "text/plain")
oHC:httpRequest:setHeader("ApiKey", **APIKEY**)
oHC:httpRequest:setMethod("GET")
cResult := oHC:send() **// response XML utf-8 string**
nStatus := oHC:getStatusCode() // numeric OK=200, NO<>200
oHC:disconnect()

----- 2

----- 3

PRIMER PREUZIMANJA SA SEF ID BROJEVA SVIH PRIMLJENIH FAKTURA
EXAMPLE OF DOWNLOADING FROM SEF ID NUMBERS OF ALL RECEIVED INVOICES
cURL := "https://demoefaktura.mfin.gov.rs/api/publicApi/purchase-invoice/ids"

PRIMER PREUZIMANJA SA SEF ID BROJEVA SVIH IZDATIH FAKTURA
EXAMPLE OF DOWNLOADING FROM SEF ID NUMBERS OF ALL ISSUED INVOICES
cURL := "https://demoefaktura.mfin.gov.rs/api/publicApi/sales-invoice/ids"
//-----
// Send REQUEST to SEF (RESTFUL WEB SERVICE MINISTRY OF FINANCE)
//-----
oHC := HttpClient():new(**cURL**) // open a new instance
oHC:setTimeout(,10000,,10000) // timeout
oHC:setAcceptType("text/plain") // text ili XML ili JSON
oHC:httpRequest:setHeader("ApiKey", **APIKEY**) // variable API KEY
oHC:httpRequest:setMethod("POST") // determine the method POST, GET itd...
cResponse := oHC:send() **// response JSON utf-8 string**
nStatus := oHC:getStatusCode() // numeric OK=200, NO<>200
oHC:disconnect()

----- 3

```

----- 4
ODOBRI I PRIHVATI PRIMLJENU FAKTURU - APPROVE AND ACCEPT THE RECEIVED INVOICE
cURL := ;
"https://demoefaktura.mfin.gov.rs/api/publicApi/purchase-invoice/acceptRejectPurchaseInvoice"
JSON_string := { "invoiceId": 12345, "accepted": "true", "comment": "" }

ODBIJ I NE PRAHVATAJ PRIMLJENU FAKTURU - REJECT AND DO NOT ACCEPT THE RECEIVED INVOICE
cURL := ;
"https://demoefaktura.mfin.gov.rs/api/publicApi/purchase-invoice/acceptRejectPurchaseInvoice"
JSON_string := { "invoiceId": 12345, "accepted": "false", "comment": "" }

JSON_string := Char2UTF8( JSON_string ) // convert to UTF-8
//-----
// Send JSON to SEF      (RESTFUL WEB SERVICE MINISTRY OF FINANCE)
//-----
oHC := HttpClient().new( cURL ) // open a new instance
oHC:setTimeout(,10000,,10000) // timeout
oHC:setAcceptType( "text/plain" ) // text or XML or JSON
oHC:httpRequest:setHeader( "Apikey", APIKEY ) // variable API KEY
oHC:httpRequest:setHeader( "Content-Type", "application/json" ) // sending JSON
oHC:httpRequest:setMethod( "POST" ) // determine the method POST, GET itd...
oHC:httpRequest:setContent( JSON_string ) // JSON utf-8 string Content
cResponse := oHC:send() // response JSON utf-8 string
nStatus := oHC:getStatusCode() // numeric: successfully=200,
oHC:disconnect() // unsuccessfully<>200

```

```

----- 4
----- 5
OTKAŽI-STORNIRAJ IZDATU FAKTURU - CANCEL-REVOID ISSUED INVOICE
cURL := "https://demoefaktura.mfin.gov.rs/api/publicApi/sales-invoice/storno"
JSON_string = {"invoiceId":9145960,"stornoNumber":"IN-9001-25","stornoComment":"21.03.2025"}

JSON_string := Char2UTF8( JSON_string ) // convert to UTF-8
//-----
// Send JSON to SEF      (RESTFUL WEB SERVICE MINISTRY OF FINANCE)
//-----
oHC := HttpClient().new( ccURL ) // open a new instance
oHC:setTimeout(,10000,,10000) // timeout
oHC:setAcceptType( "text/plain" ) // text ili XML ili JSON
oHC:httpRequest:setHeader( "Apikey", APIKEY ) // variable API KEY
oHC:httpRequest:setHeader( "Content-Type", "application/json" ) // // sending JSON
oHC:httpRequest:setMethod( "POST" ) // determine the method POST, GET itd...
oHC:httpRequest:setContent( JSON_string ) // JSON utf-8 string Content
cResponse := oHC:send() // response JSON utf-8 string
nStatus := oHC:getStatusCode() // numerik: uspešno=200,
oHC:disconnect() // neuspešno<>200

```

```

----- 5

```

----- 6

PREUZMI STATUS ZA PRIMLJENU FAKTURU - GET STATUS FOR RECEIVED INVOICE

cURL="https://demoefaktura.mfin.gov.rs/api/publicApi/purchase-invoice?invoiceId=12345678"

PREUZMI STATUS ZA IZDATU FAKTURU - GET STATUS FOR ISSUED INVOICE

cURL="https://demoefaktura.mfin.gov.rs/api/publicApi/sales-invoice?invoiceId=23456789"

//-----

// Send REQUEST to SEF (RESTFUL WEB SERVICE MINISTRY OF FINANCE)

//-----

oHC := HttpClient():new(**cURL**)

oHC:setTimeout(,10000,,10000)

oHC:httpRequest:setHeader("Accept", "text/plain")

oHC:httpRequest:setHeader("ApiKey", **APIKEY**)

oHC:httpRequest:setMethod("GET")

cResult := oHC:send() // **response JSON utf-8 string**

nStatus := oHC:getStatusCode() // numeric OK=200, NO<>200

oHC:disconnect()

----- 6

21.03.2025

