SmartMeterTexas Third Party Download Settins

SOAPUI 1.0

April 5, 2016

Emotto5User

EcoMotto Inc

PO BOX 832081 Richardson TX 75083

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## Certificates & PGP Key Generation

### Download Software for Certificate & PGP Key Generation

SoapUI Download:

Download SoapUI version 5.2.1 from <https://www.soapui.org/downloads/latest-release.html>

SoapUI Installation:

Windows

Run SoapUI-x64-5.2.1.exe and follow the steps to install

Linux

Type sudo ./SoapUI-x64-5.2.1.sh in terminal

### Certificates & PGP Key Generation

Certificate Generation:

Create the root key:

openssl genrsa -out ecomottotest.key 2048

Create the csr from private key:

openssl req -new -key ecomottotest.key -out ecomottotest.csr

Create self-signed certificate:

openssl x509 -req -days 365 -in ecomottotest.csr -signkey ecomottotest.key -out ecomottotest.crt

transform to pem form:

cp ecomottotest.crt ecomottotest.pem

Generate P12:

openssl pkcs12 -export -out fullchain5.p12 -inkey ecomottotest.key -in ecomottotest.pem

Generate the jks file for soapui:

keytool -importkeystore -srckeystore fullchain5.p12 -srcstoretype PKCS12 -deststoretype JKS -destkeystore ecomottotest\_CA2.jks

PGPkey Generation:

sudo gpg --gen-key

Type of key:

select RSA (sign only)

Key size:

2048

Expiration time:

0

Real name: Max Wang

Email address: wylittlerain@gmail.com

Comment: your comment

Enter your passphrase: 8708165Xx!

It may need some entropy please open another terminal and type “find / |xargs file”

Output the public key and private key:

export public key:

sudo gpg --armor --output EcoMotto\_PGPPublicKey.dat --export Max Wang

export private key:

sudo gpg --export-secret-keys -a Max Wang > secret-key-364DD208.asc

### Certificates & PGP Key Sent to SmartMeterTexas

Certificate:

ecomottotest.pem

(<https://github.com/ecomotto/EMAnalytics/blob/EcomottoUser5/smartMeterTexas/SoapRequestGuide/>)

PGPpublicKey:

EcoMotto\_PGPPublicKey.dat (<https://github.com/ecomotto/EMAnalytics/blob/EcomottoUser5/smartMeterTexas/SoapRequestGuide/>)

### Certificates & PGP Key Kept for EcoMotto Inc

Certificate and private key:

ecomottotest.pem

ecomottotest.key

ecomottotest.crt

fullchain5.p12

ecomottotest\_CA2.jks

PGPkey:

EcoMotto\_PGPPublicKey.dat

secret-key-364DD208.asc

location:

<https://github.com/ecomotto/EMAnalytics/blob/EcomottoUser5/smartMeterTexas/SoapRequestGuide/>

### Certificates and Keys

SSL Certificate:

ecomottotest.pem

-----BEGIN CERTIFICATE-----

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-----END CERTIFICATE-----

SSL private key :

ecomottotest.key

-----BEGIN RSA PRIVATE KEY-----

Proc-Type: 4,ENCRYPTED

DEK-Info: DES-EDE3-CBC,CCB9223325C7F9B5

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-----END RSA PRIVATE KEY-----

EcoMotto\_PGPPublicKey.dat

-----BEGIN PGP PUBLIC KEY BLOCK-----

Version: GnuPG v2.0.22 (GNU/Linux)

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O8jxM0cHdT4=

=VdRQ

-----END PGP PUBLIC KEY BLOCK-----

PGPPrivateKey

secret-key-364DD208.asc

-----BEGIN PGP PRIVATE KEY BLOCK-----

Version: GnuPG v2.0.22 (GNU/Linux)

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=KeJP

-----END PGP PRIVATE KEY BLOCK-----

## SoapUI Configuration

### 2-1. SoapUI Download:

Download SoapUI version 5.2.1 from <https://www.soapui.org/downloads/latest-release.html>

### 2-2. SoapUI Installation:

Windows

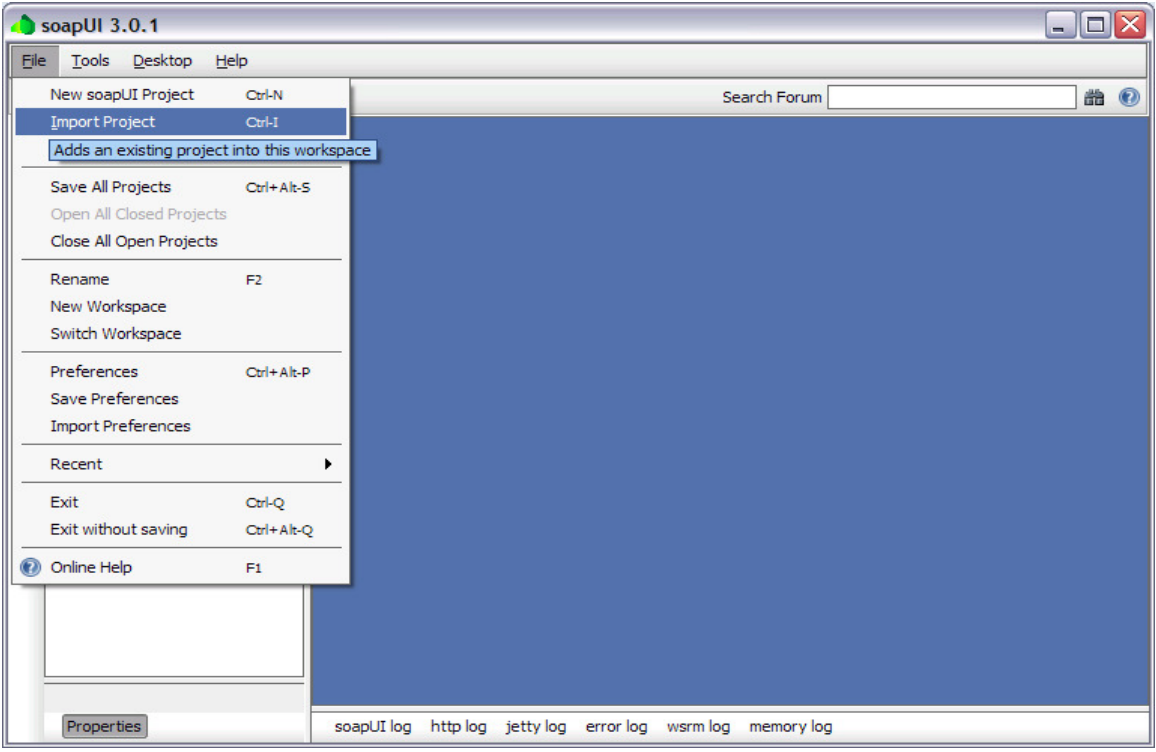
Run SoapUI-x64-5.2.1.exe and follow the steps to install

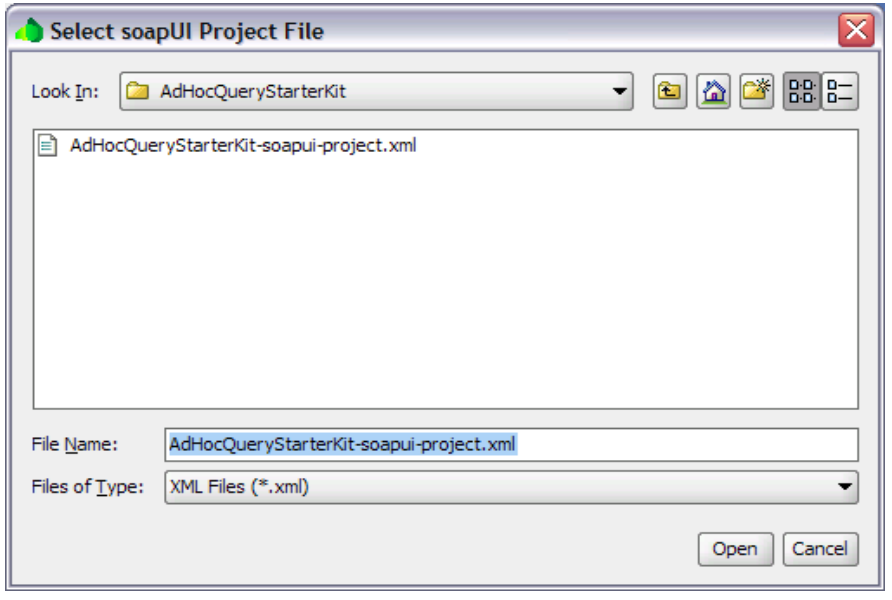
Linux

Type sudo ./SoapUI-x64-5.2.1.sh in terminal

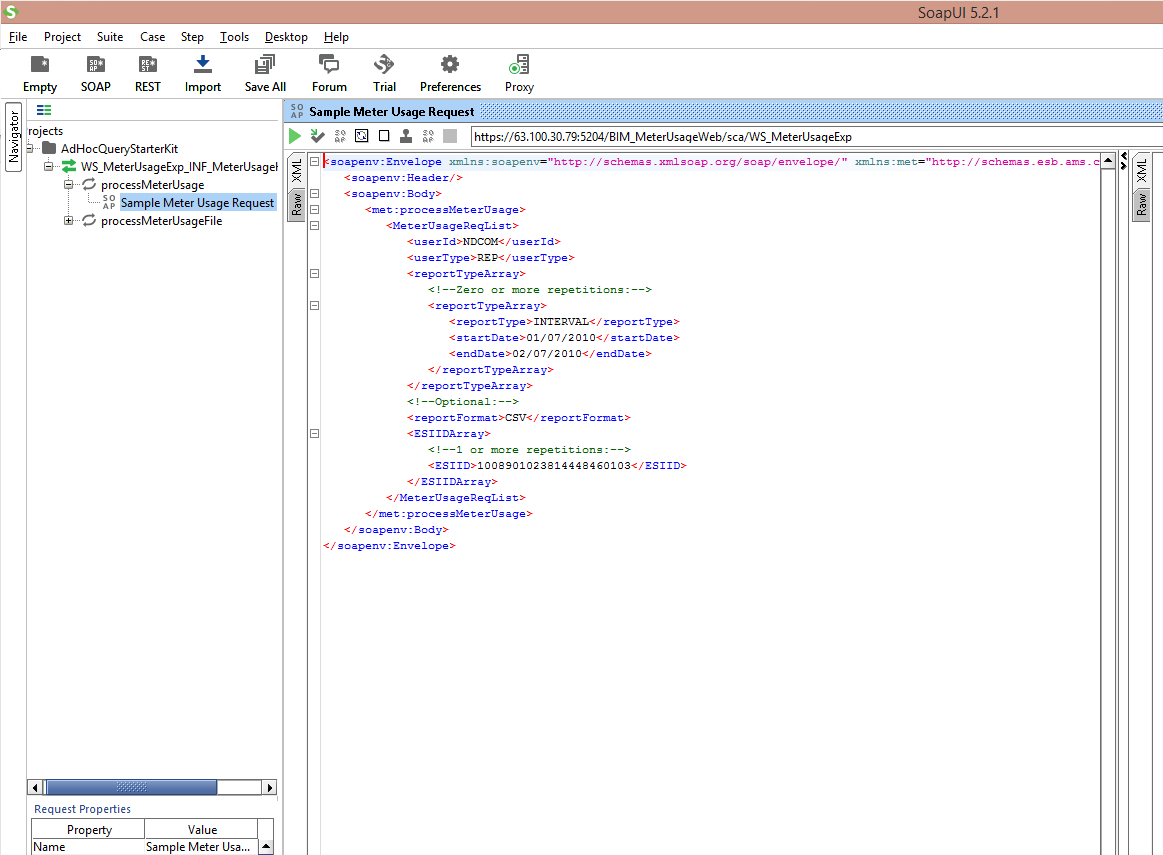
### 2-3. SoapUI Configuration

1. Import the AdHocQueryStarterKit-soapui-project.xml project

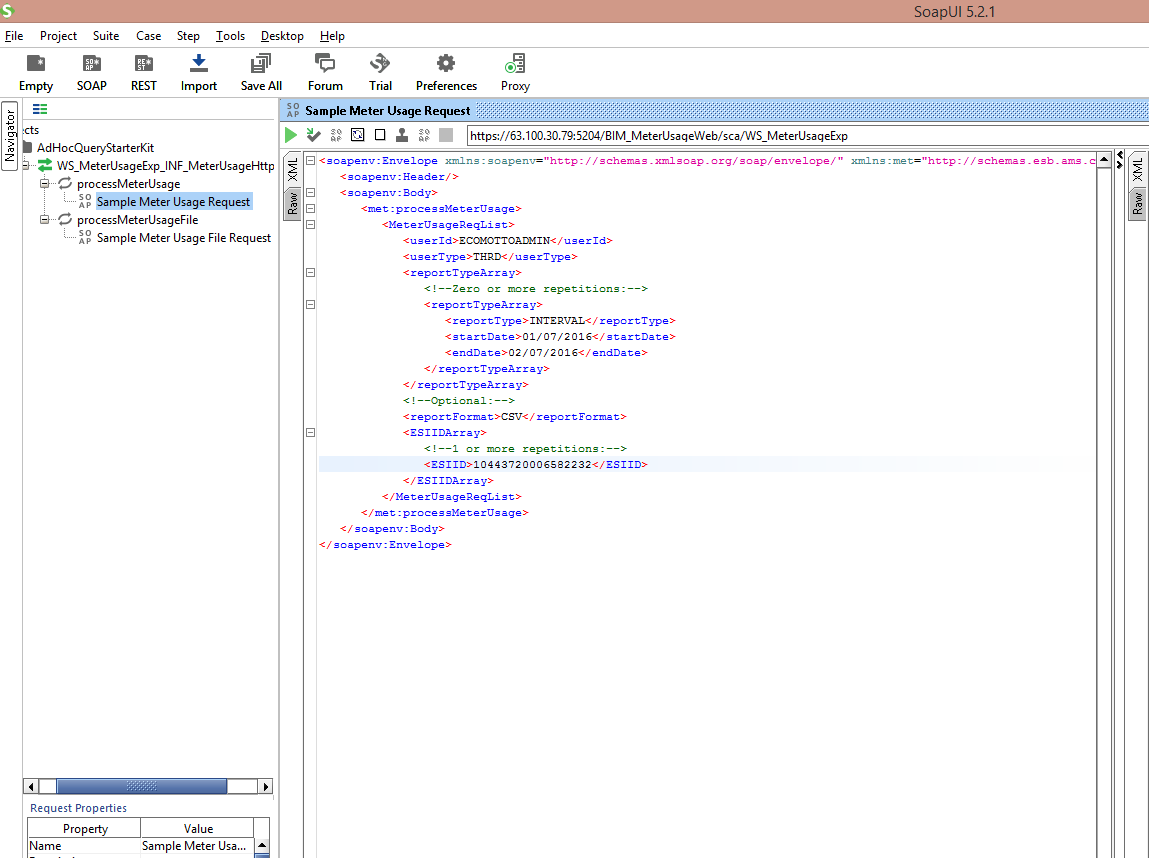




In the Navigator click the Sample Meter Usage Request, you will see the sample request below

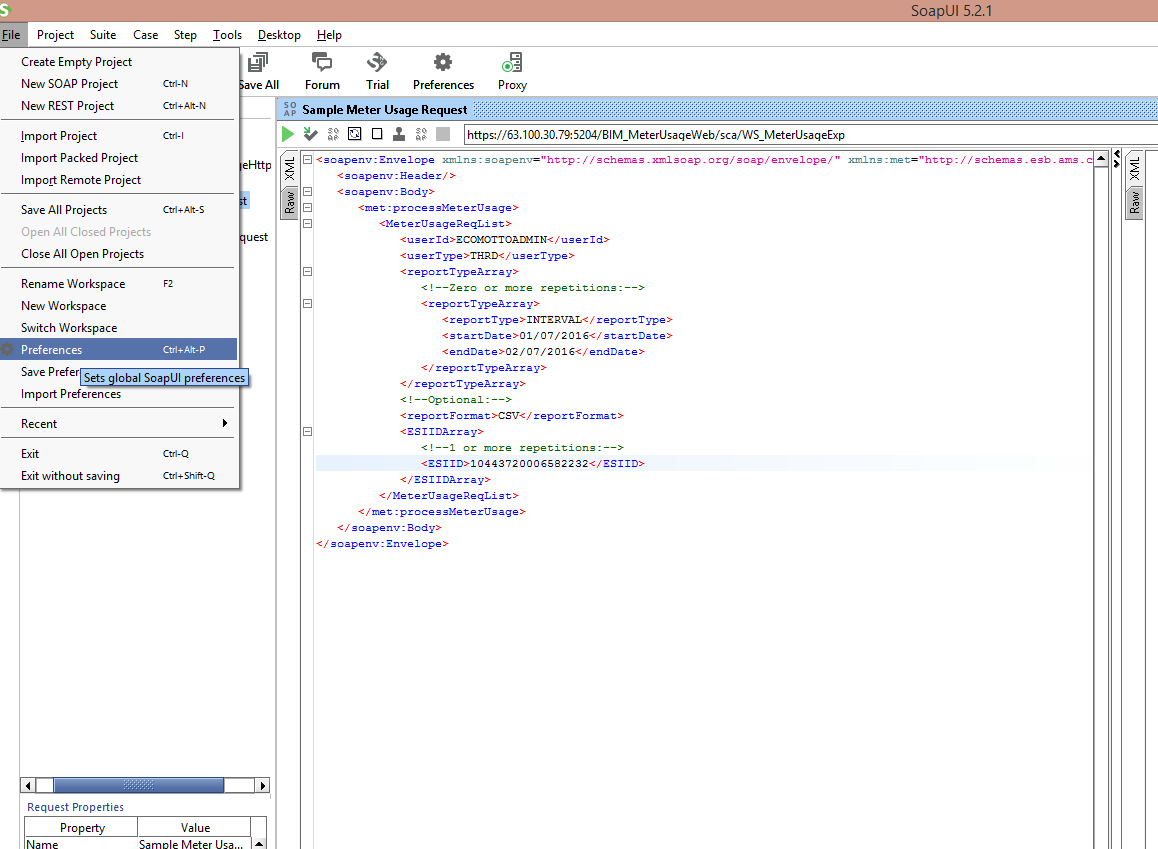


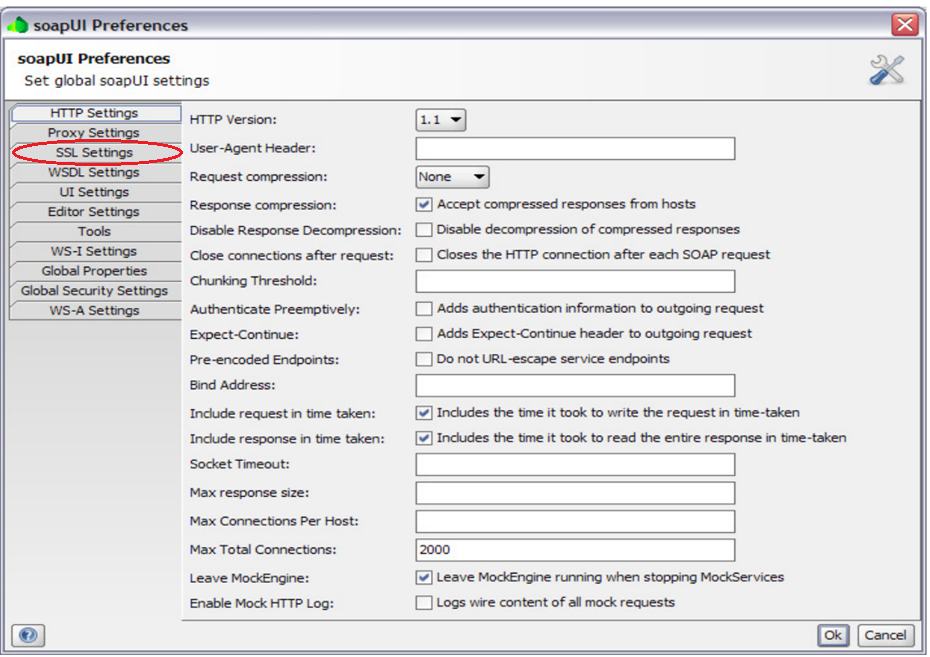
Change the userId and userType, and specify the ESIID and Date



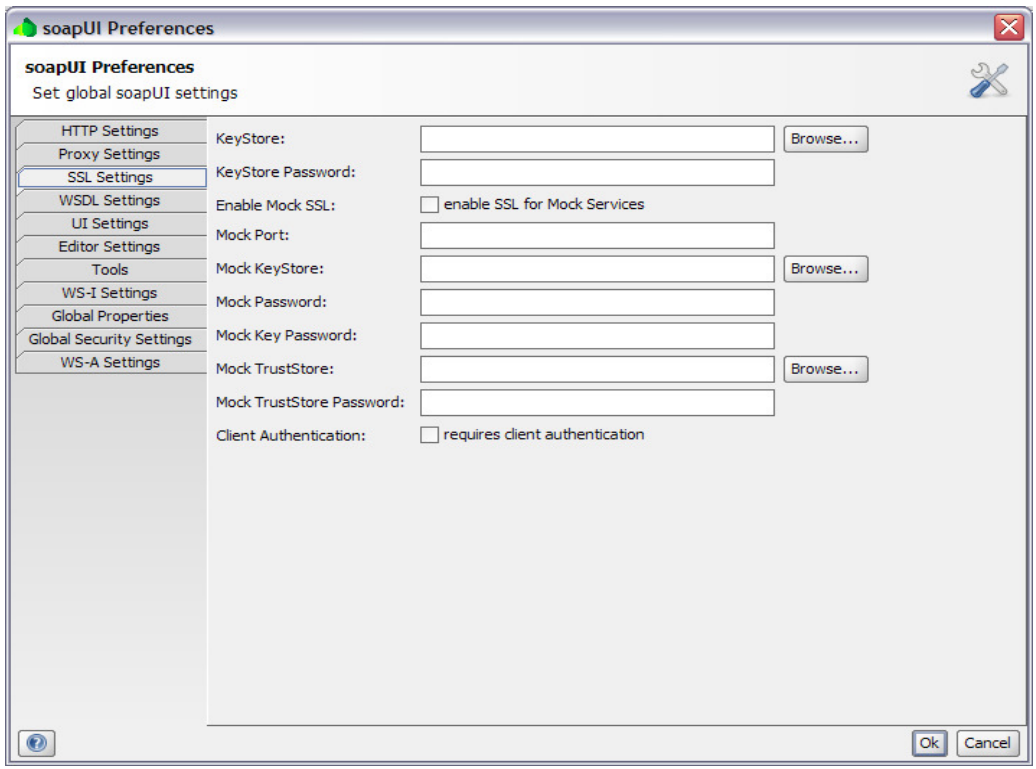
1. SSL Configuration

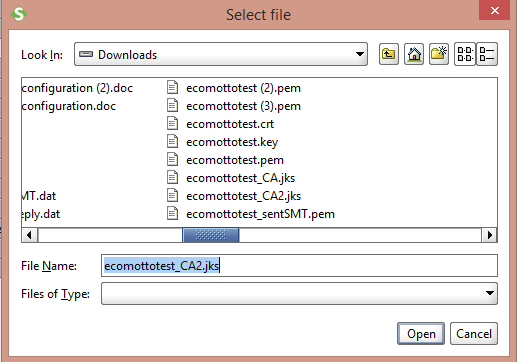
Open the File menu and select the Preferences





Access the SSL Settings

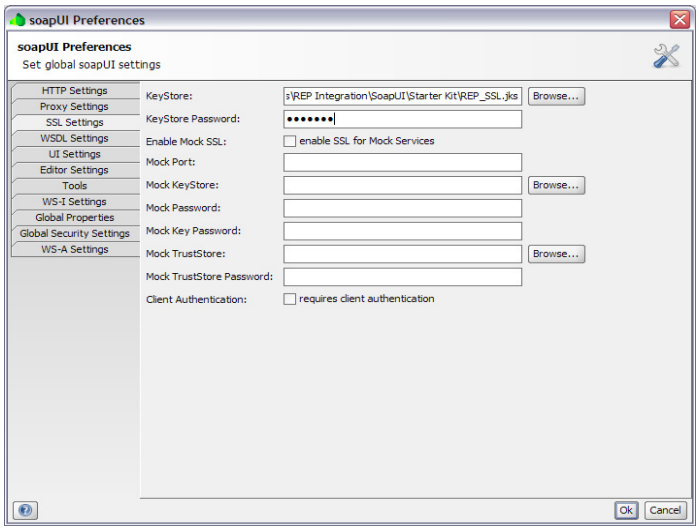




To generate the JKS file, please refer to the file Certificates Generation.txt in link <https://github.com/ecomotto/EMAnalytics/tree/EcomottoUser5/API_FTP/SoapRequestGuide>

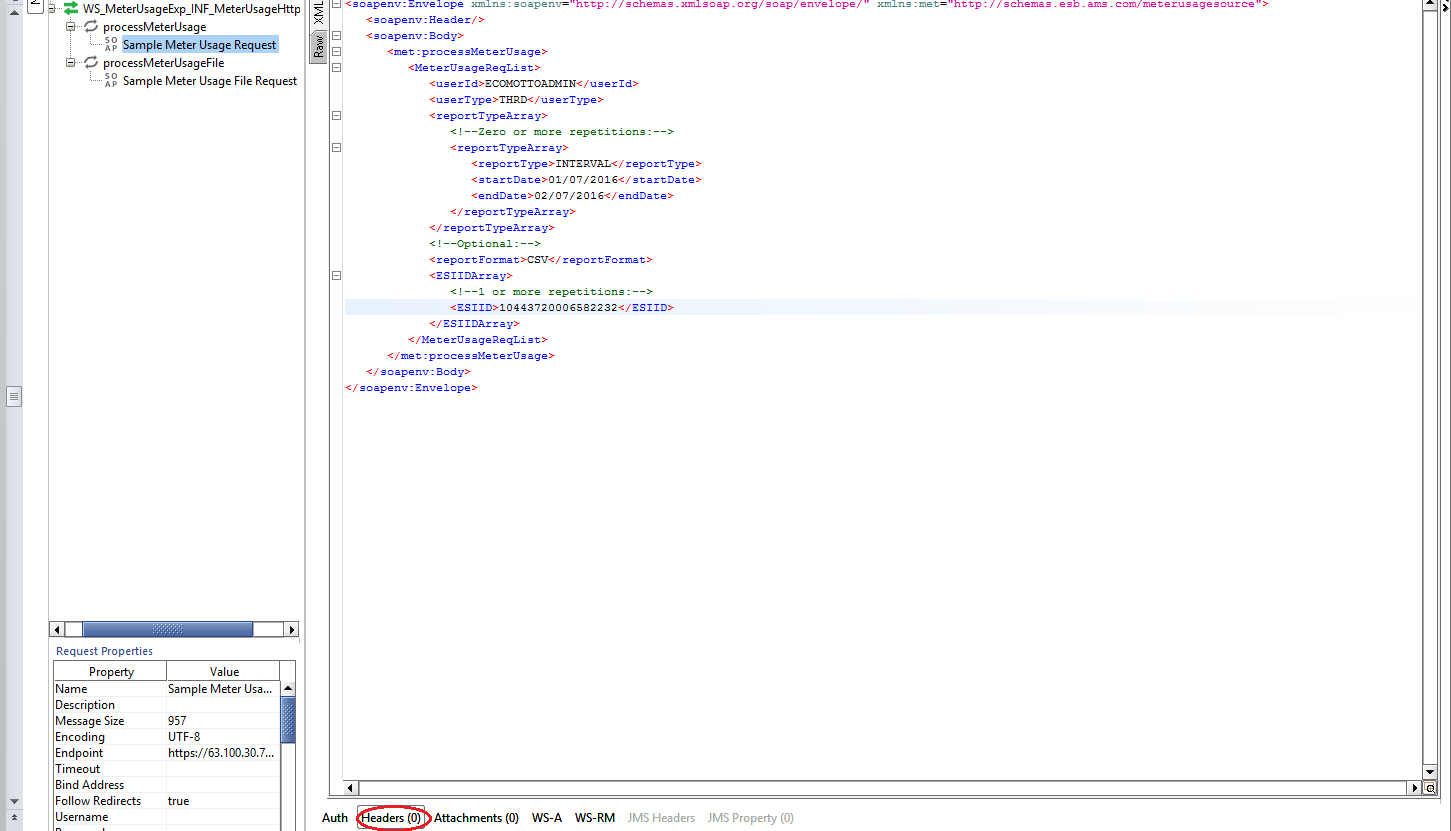
Import the Java key store file : ecomottotest\_CA2.jks

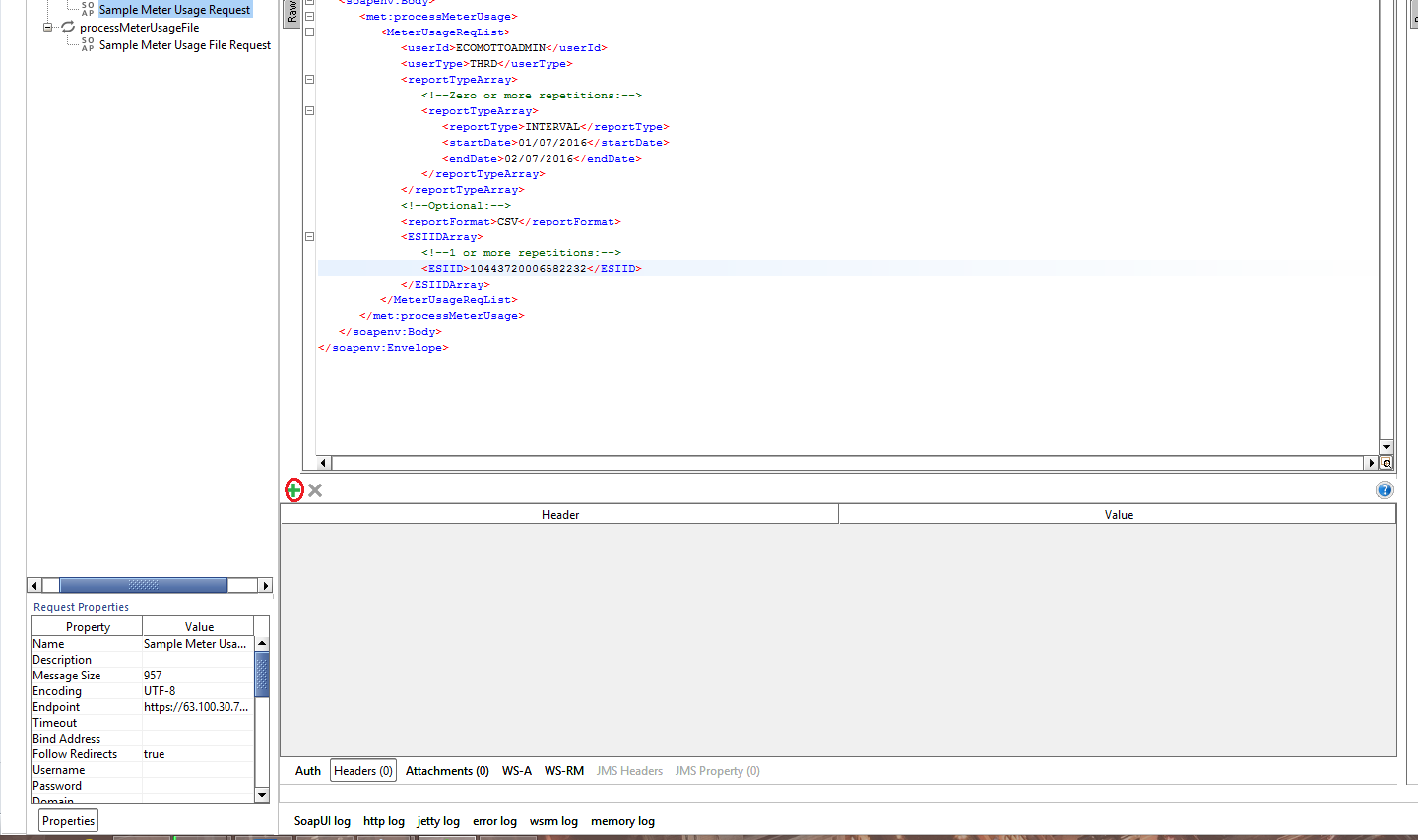
Password: 8708165Xx!

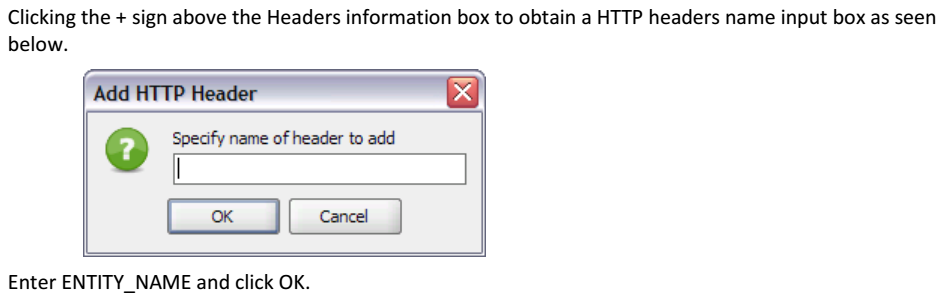


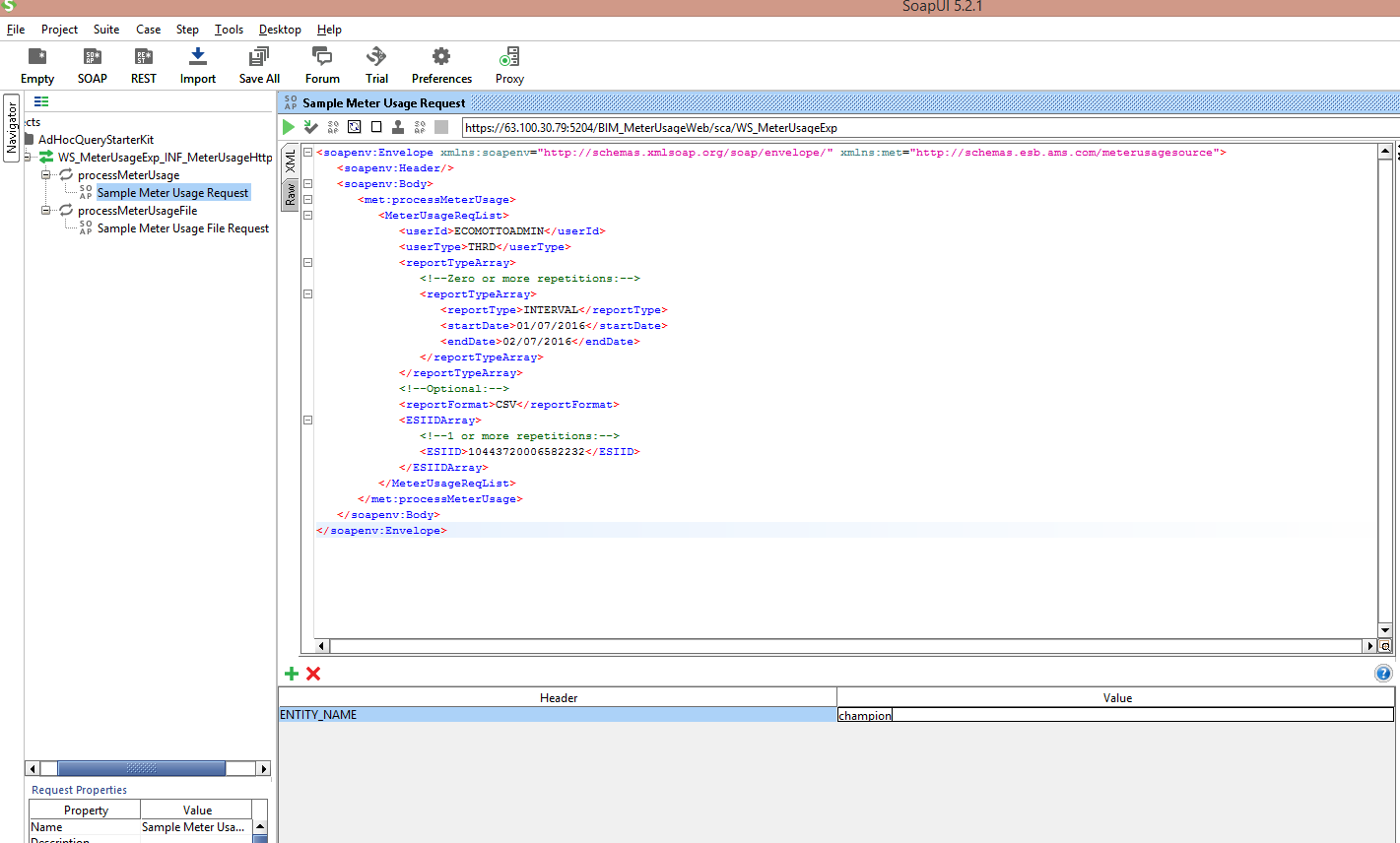
1. HTTP Header Configuration

In the request panel, click the header in the bottom to add the information in header



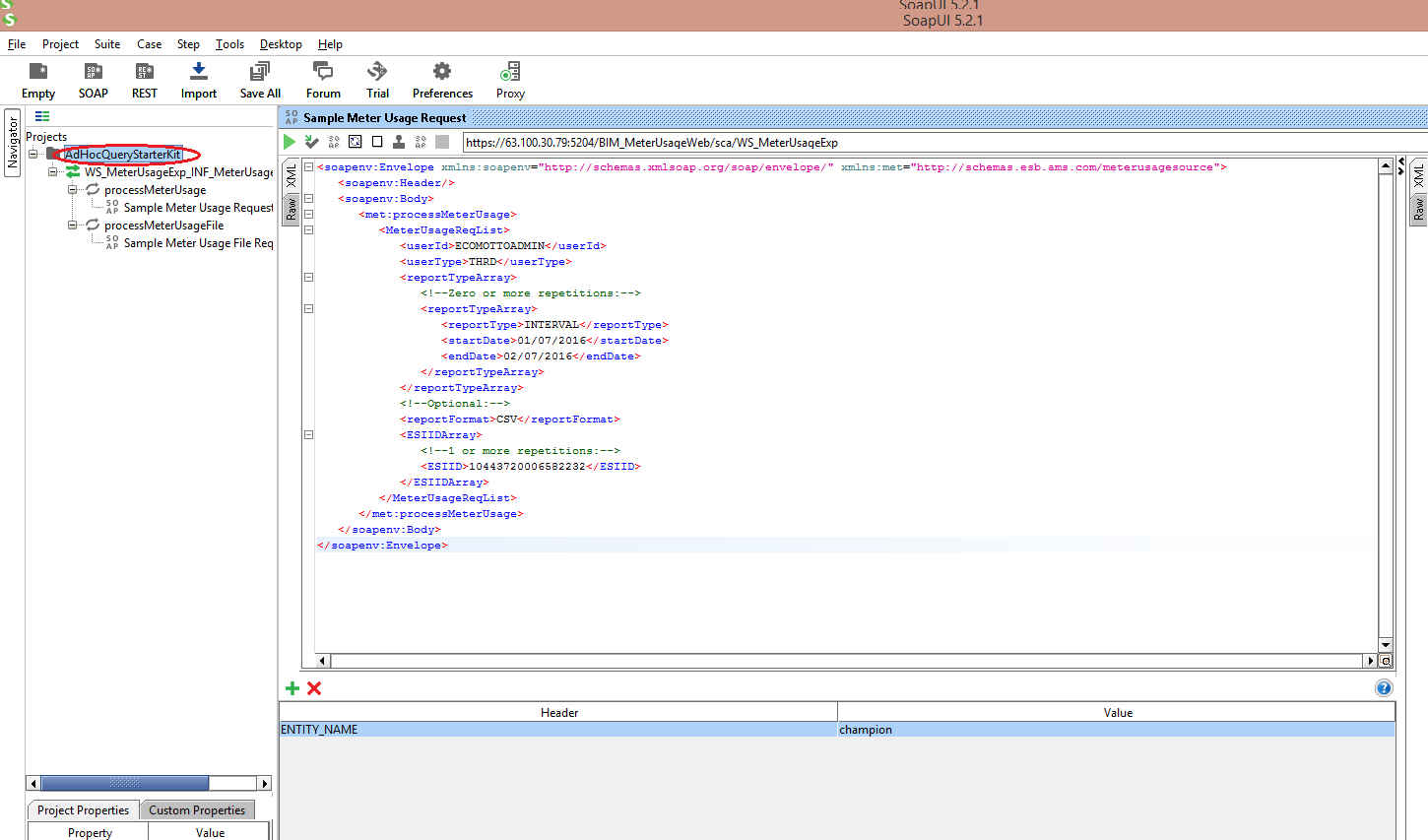


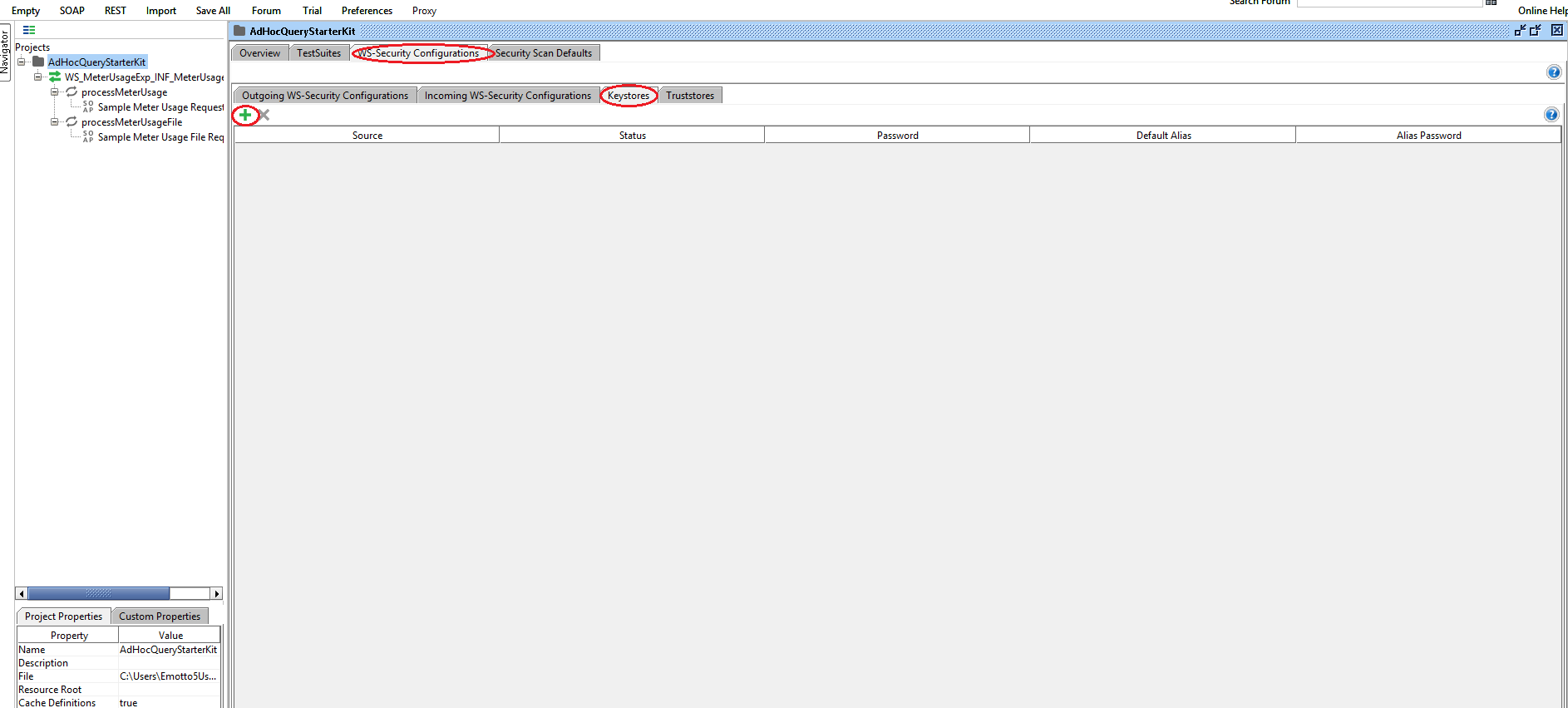


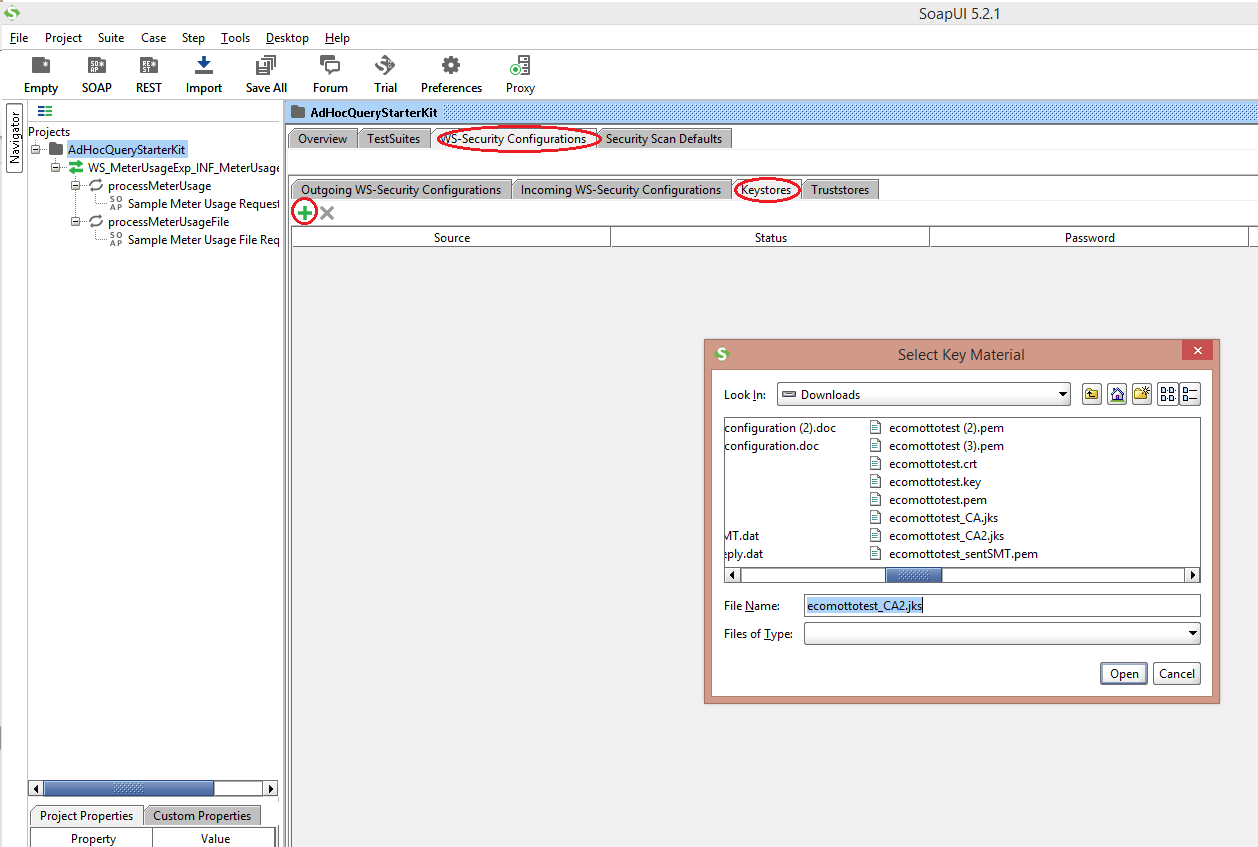


1. WS-Security Configuration

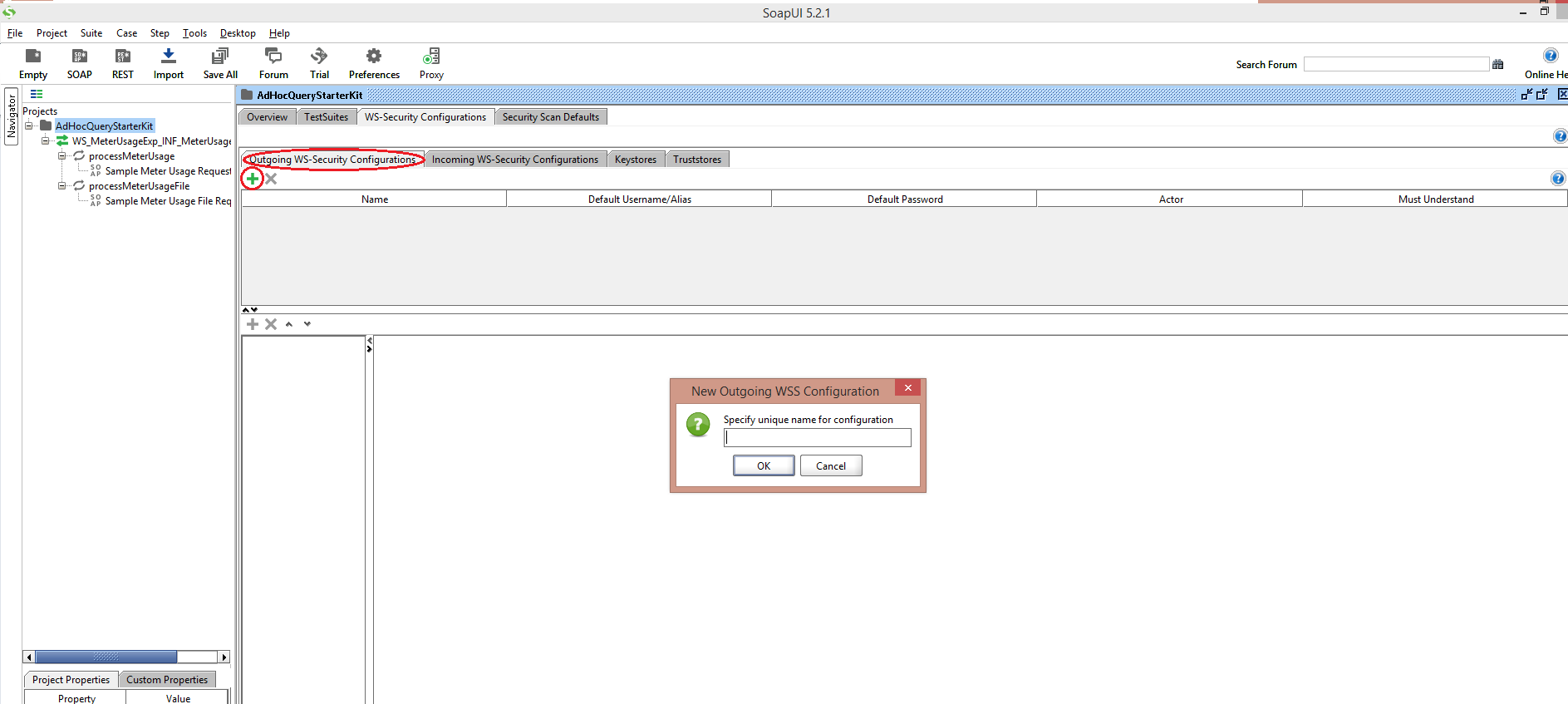
Double click the Project to access the WS-security configuration

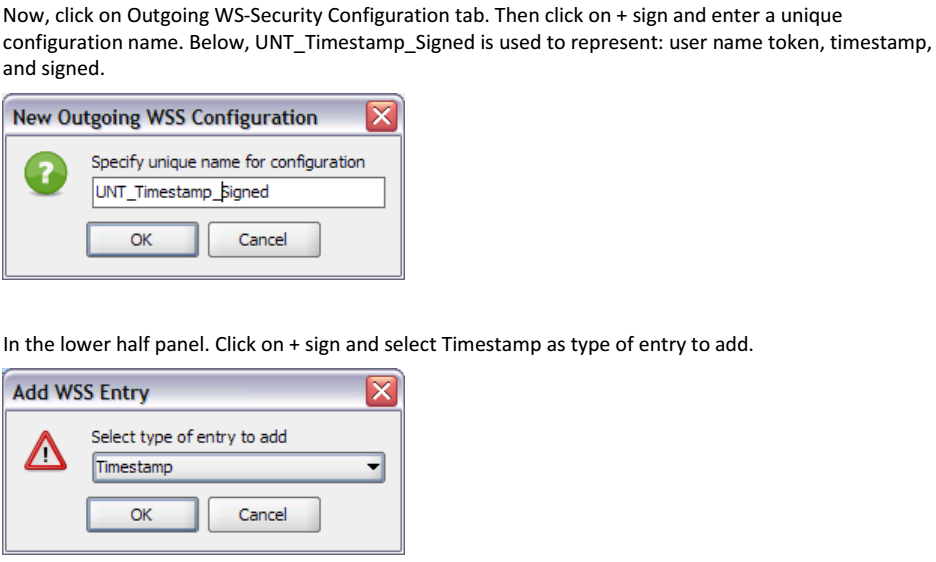


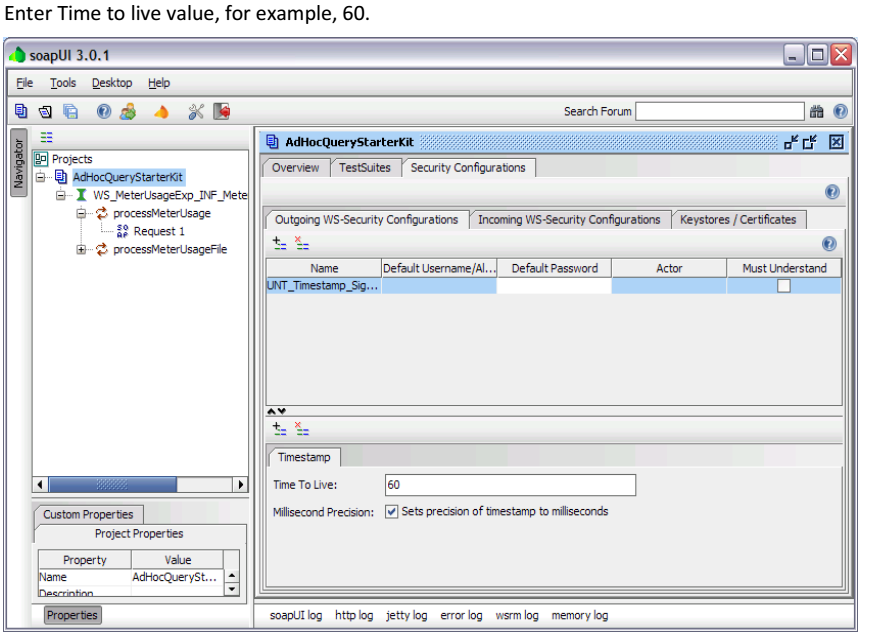




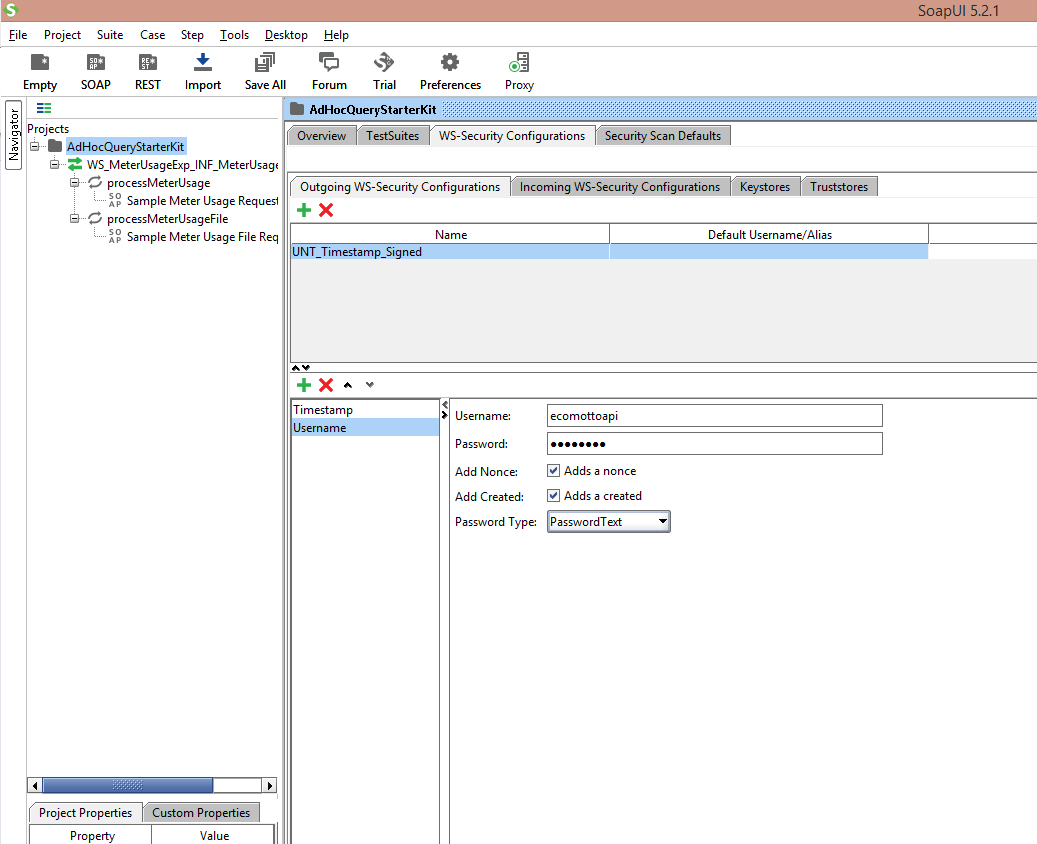
Ecomottotest\_CA2.jks







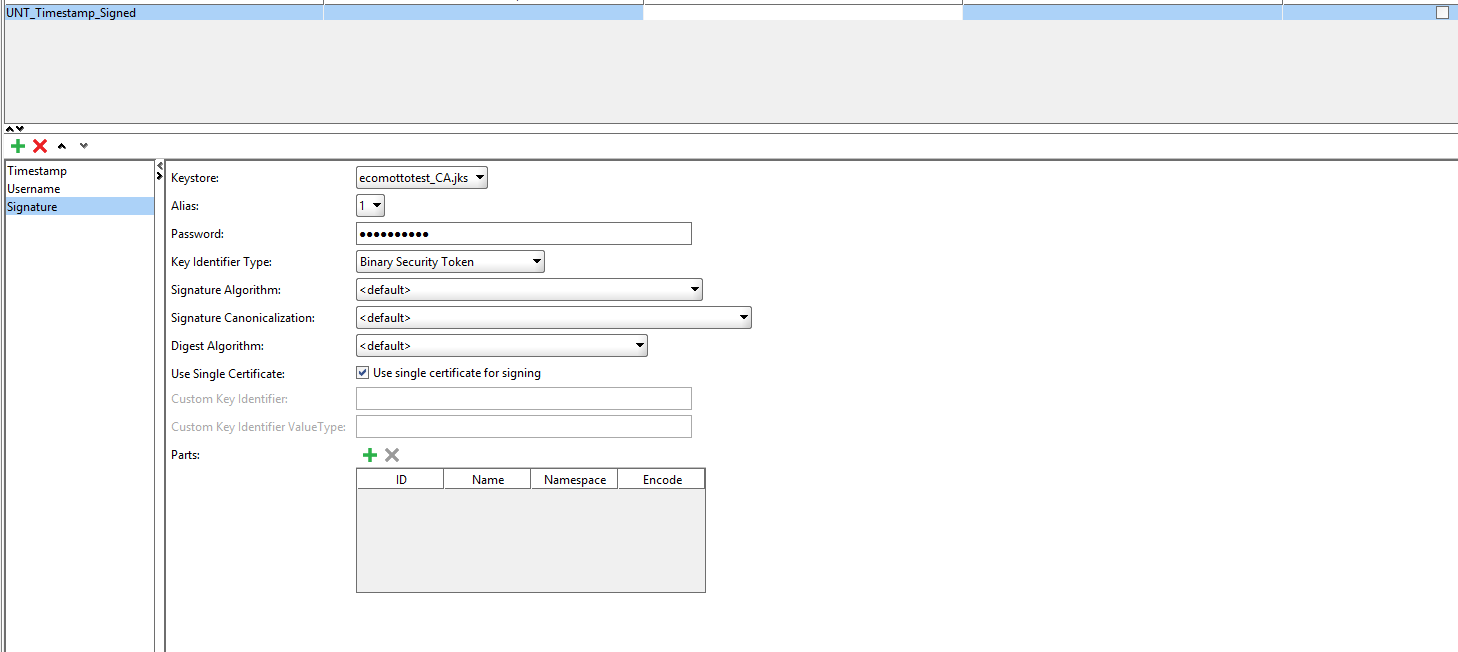
Add username and password



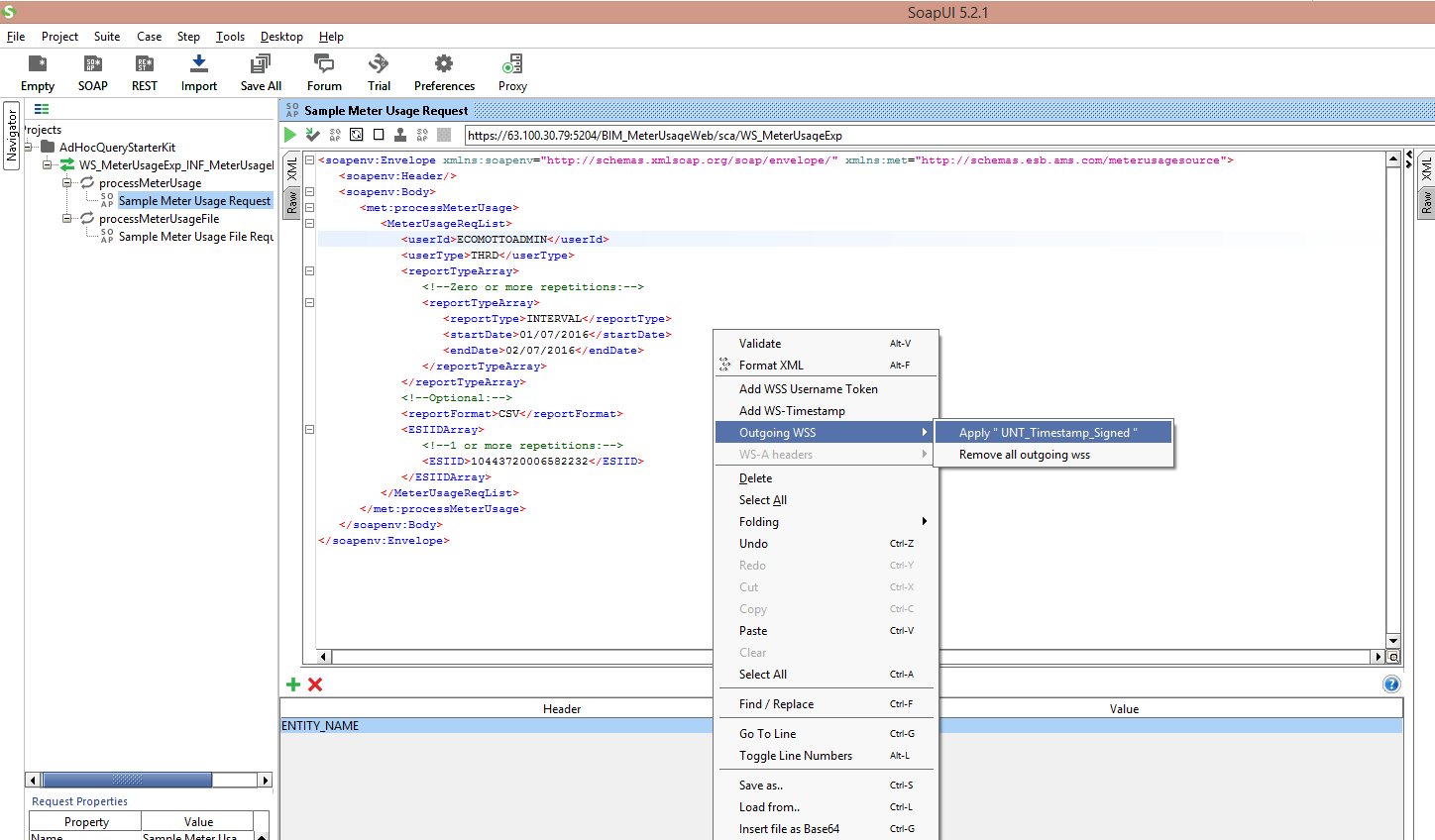
Username: ecomottoapi

Password: pa55word

Add signature and configure like below:



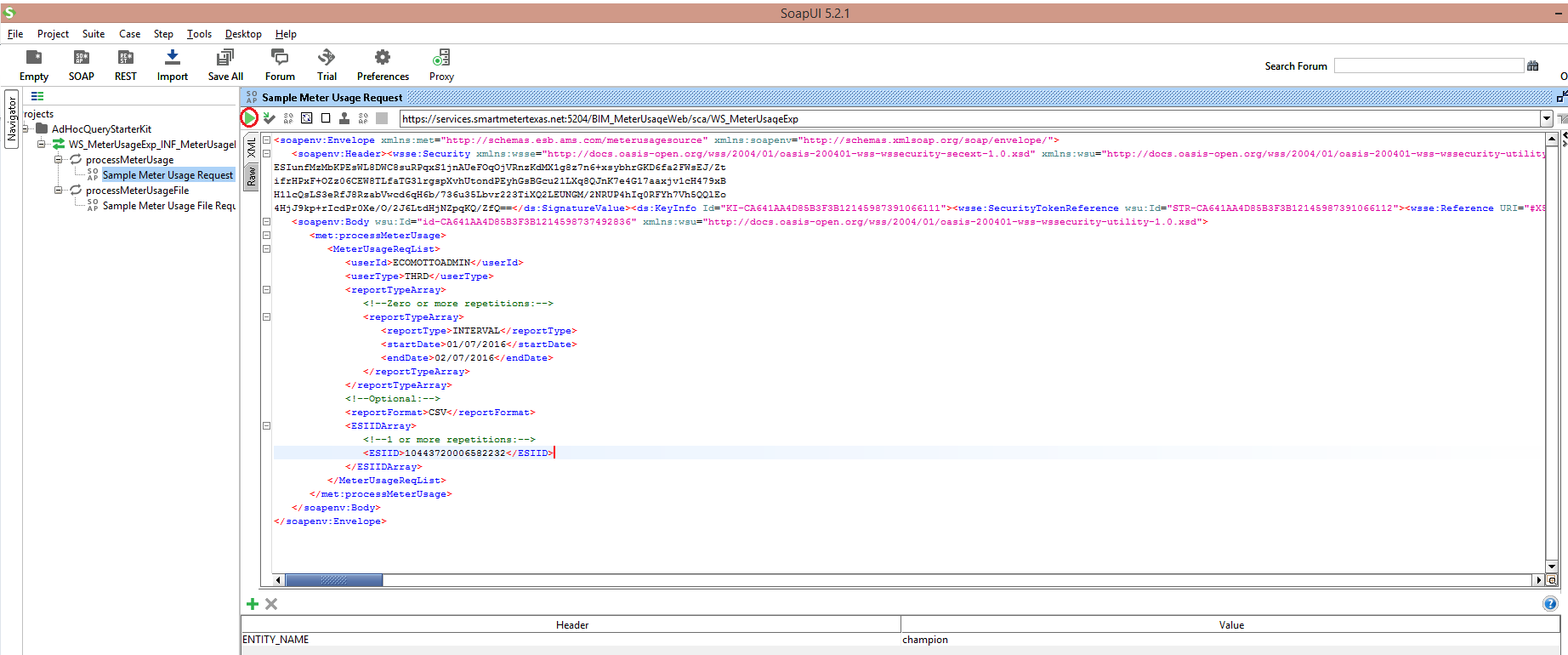
1. Right click the soap request code and applying a Web Services Signature to an Outgoing Request



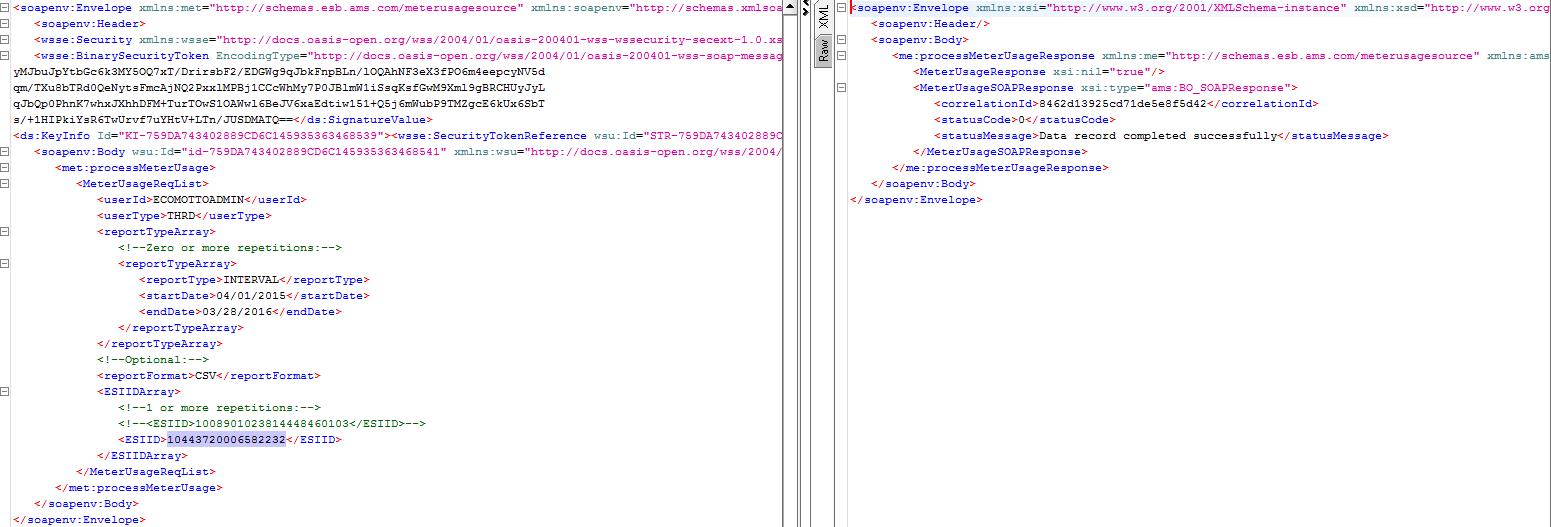
Make sure to edit the soap information before applying the WSS Signature

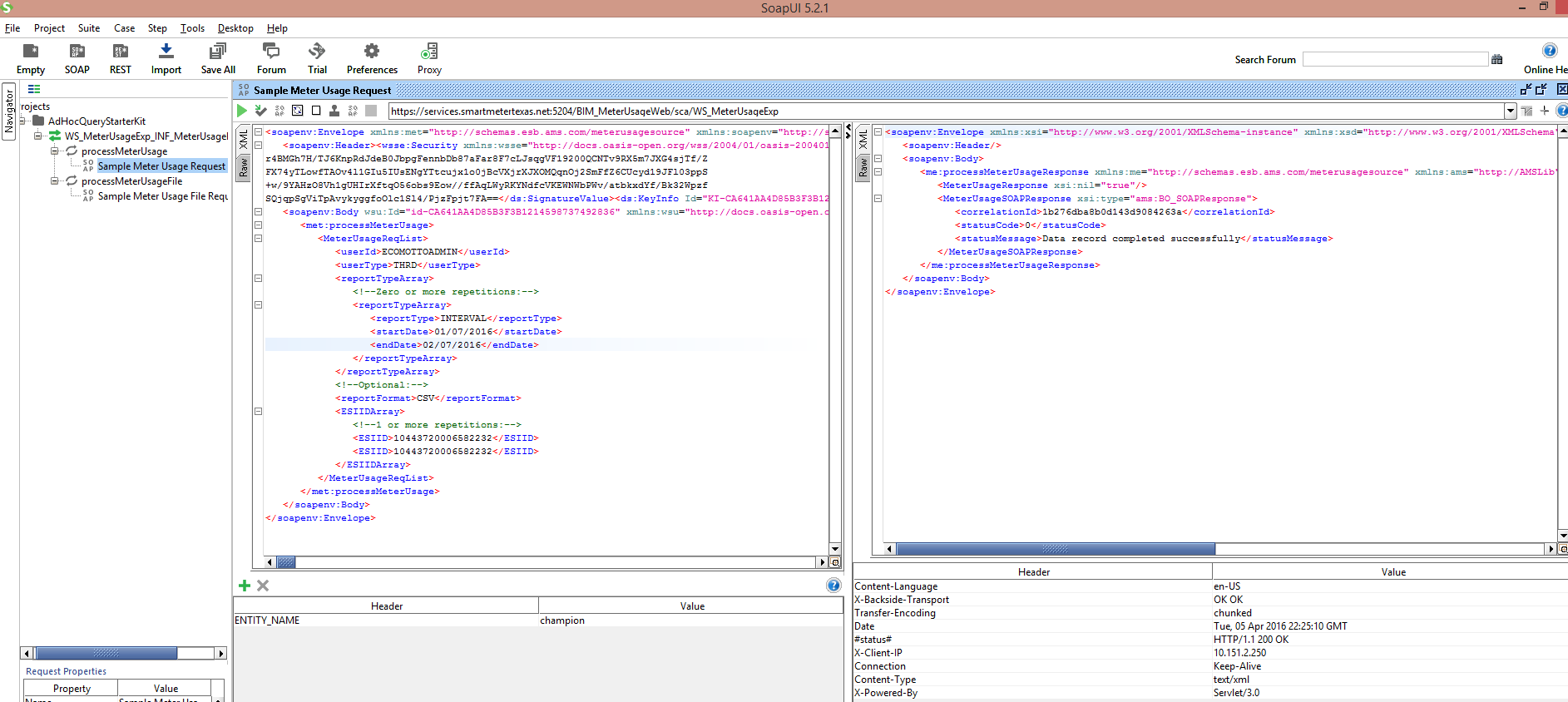
Make sure to edit the address to <https://services.smartmetertexas.net:5204/BIM_MeterUsageWeb/sca/WS_MeterUsageExp>

Then click the green arrow



It will display like below if everything goes well:





## FTP Download, Decoding, Unzip

### 3-1. FTP download

To download the asc files from ftpserver, please run the following command:

sudo lftp -e 'set [ftp:ssl-force](ftp://ssl-force/) true; set ssl:verify-certificate no; mirror adhocusage/ /home/emotto\_user2/ftpdata/ascfiles/' -u ecomotto,pa55wordeco [ftp.smartmetertexas.biz](ftp://ftp.smartmetertexas.biz/)

For detail please refer to the program ftpdownloader2.sh in github link:

<https://github.com/ecomotto/EMAnalytics/tree/EcomottoUser5/EcoStreaming/ftpdata>

Before using gpg to decrypt, please first import PGP public key and private key:

sudo gpg --import PGPpublickey

(<https://github.com/ecomotto/EMAnalytics/tree/EcomottoUser5/smartMeterTexas/SoapRequestGuide>)

sudo gpg --allow-secret-key-import --import secret-key-364DD208.asc

(<https://github.com/ecomotto/EMAnalytics/tree/EcomottoUser5/smartMeterTexas/SoapRequestGuide>)

### 3-2. PGP Decoding

sudo gpg --passphrase 8708165Xx! --decrypt-files ascfilename

### 3-3. Unzip

Sudo unzip \*.079709864 -d /home/emotto\_user2/ftpdata/csvfiles

For detail please refer to the program ftplogger2.sh in github link:

<https://github.com/ecomotto/EMAnalytics/tree/EcomottoUser5/EcoStreaming/ftpdata>