

**DAVE**

**SOAP Web Services**

# Introduction

This document provides information about the Dave Web Services API and serves as a basic explanation for people with technical skills who are making a connection to Dave with the Dave Web Services.

If more explanation is required, then Just Software can provide consulting on this subject. Please contact our administration for more information on [info@justsoftware.be](mailto:info@justsoftware.be).

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# 1.General

Dave Web Services API uses the SOAP protocol. And this protocol communicates between computers with XML-files through HTTP. (REST is not yet supported.)

## 2.Installation & setup

DAVE stores its data in a central FrontBase-database (sql92). And to avoid network delays the Omnis Webserver with the Dave Web Services usually is installed on the same computer as where the database is installed.

The installation of the Omnis Webserver needs to be done by the services of Just Software. For more information please contact [info@justsoftware.be](mailto:info@justsoftware.be).

## 3.Data formatting

Fields of the type "shortnumber2dp" must be delivered with 2 decimals : 0.00 and not 0

An empty date is presented as 1980-01-01

A date&time value has the format 2000-01-01T10:00:00.OZ

## 4. Web Services

### 4.1. List of webservices

A full list of the Dave Web Services with detail and description can be found in the file **wsdl-report.html**. If needed, you can request this file by sending an e-mail to [support@justsoftware.be](mailto:support@justsoftware.be).

Retrieving all SOAP requests and responses is possible with the .wsdl file on the server (after installation or with demo-setting from ).

Demo from Just Software: <http://hal.justsoftware.be:49001/davewslink/integration.wsdl>

Live (after installation): [http://\[server\]:\[port\]/davewslink/integration.wsdl](http://[server]:[port]/davewslink/integration.wsdl)

There are SOAP requests for:

- general data : vat codes, contacts, contact groups, delivery addresses, payment conditions, delivery conditions, customer groups, countries, currency codes, language codes, price lists, sales persons, zip codes, legal forms, settings such as point of sales customer number, standard price list code, intro and footer texts, standard currency code, ...
- data from the Order-module : quotes, sales orders, article items, article sales prices, ...

Some requests do not have any parameter, others need a company code or a branch code. All requests require a live connection except for the Ping message as it allows to check for the availability of the service.

In the webservice examples in this document you need to replace "localhost" by the web server IP address.

By default the offset is 1000.

### 4.1. Web Service types

**Search** : these series of requests deal with searing using several selection criteria

**Get** : these series of requests deal with retrieving 1 specific article, sales order, ...

GetKlant : to look for a specific customer

GetArtikel : to look for a specific article

GetArtikelPrijzen : to get the up-to-date sales prices for an article

**Sync** : these series of requests allow an automated process to store a sync data so that only newly created or modified data is retrieved, you should keep the latest sync data on your system.

SyncKlanten : get all customers since the last synchronisation (keep the sync date)

SyncArtikels : get all articles since the last synchronisation (keep the sync date)

SyncArtikelPrijzen : get all article sales prices since the last synchronisation (keep the sync date)

In case you maintain your own database, you will first need the "Sync" calls

### 4.2. Web service defaults

When connection to Dave Web Services, you need to get to know some default values from the Demo or Live Dave database :

- what is the company code and branch code in the database?
- what is the standard tariff code in the company?
- what is the prefix for a sales order ("B/")?

## 4.3. Testing connectivity

### 4.3.1. Ping request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:int="http://localhost:5912/davewslink/integration.wsdl">
  <soapenv:Header/>
  <soapenv:Body>
    <int:Ping/>
  </soapenv:Body>
</soapenv:Envelope>
```

### 4.3.2. Ping response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xs="http://www.w3.org/
2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soap:Body>
    <PingResponse xmlns="http://localhost:5912/davewslink/integration.wsdl">
      <return>true</return>
    </PingResponse>
  </soap:Body>
</soap:Envelope>
```

Since this response answered a return of "true", this ping indicates that it successfully communicated with the Omnis Webserver.

## 4.4. Opening a connection

Before you start retrieving data, you should logon to the services.

After that do a Logoff in order to free the web service session. Default time-out is 5 minutes.

Warning: If you are testing requests, don't forget to Logoff or you will exceed the maximum number of sessions.

### 4.4.1. Logon request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:int="http://localhost:5912/davewslink/integration.wsdl">
  <soapenv:Header/>
  <soapenv:Body>
    <int:Logon>
      <int:pUser>DAVE</int:pUser>
      <int:pPassword></int:pPassword>
      <int:pDeviceType></int:pDeviceType>
      <int:pDeviceId></int:pDeviceId>
      <int:pDeviceName></int:pDeviceName>
    </int:Logon>
  </soapenv:Body>
</soapenv:Envelope>
```

all parameter tags should be sent

### 4.4.2. Logon response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soap:Body>
    <LogonResponse xmlns="http://localhost:5912/davewslink/integration.wsdl">
      <return>
        <_connectionid>@@@@@A@@@@@DVS@QH@A@DAGAHGSHE</_connectionid>
      </return>
      <return>
        <status>1</status>
        <timestamp>2012-12-25T19:28:59.0Z</timestamp>
        <errcode/>
        <errdesc/>
        <count>0</count>
        <newdeviceid/>
        <data>true</data>
      </return>
    </LogonResponse>
  </soap:Body>
</soap:Envelope>
```

The most important return parameter is `_connectionid`. You will need it for every other request during this session.

Every response has a fixed structure :

status :	0=error 1=OK
timestamp :	date and time sent from the web service
errcode :	in case of an error, this will contain an error code f.i. a database error code
errdesc :	same, but a readable description
count :	mentions the number of rows in a list
data :	this can be character, a date, a row or a list

## 4.5. Inserting a sales order

Web Service: CreateBestellingLite

If the orders are numbered by Dave, you also need GetBestellingNummer.

The request below adds a sales order to Dave with one article of 100€ and which is paid cash.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:int="http://localhost:5912/davewslink/integration.wsdl">
  <soapenv:Header/>
  <soapenv:Body>
    <int:CreateBestellingLite>
      <int:_connectionid>@@@@@@@@@@@@@DVS@QH@FDAGAHTVU@</int:_connectionid>
      <int:pCINTERNEFIRMA>JUSTDECO</int:pCINTERNEFIRMA>
      <int:pCINTERNEFIRMAVESTIGING>DILBEEK</int:pCINTERNEFIRMAVESTIGING>
      <int:pOrder>
        <int:CINTERNEFIRMA>JUSTDECO</int:CINTERNEFIRMA>
        <int:CINTERNEFIRMAVESTIGING>DILBEEK</int:CINTERNEFIRMAVESTIGING>
        <int:CNUMMER>20007</int:CNUMMER>
        <int:CBEDRAGBTW>21.00</int:CBEDRAGBTW>
        <int:CBEDRAGEXCL>100.00</int:CBEDRAGEXCL>
        <int:CBEDRAGINCL>121.00</int:CBEDRAGINCL>
        <int:CCONTACT>1090</int:CCONTACT>
        <int:CDATUM>2013-07-13</int:CDATUM>
        <int:CLEVERINGSADRES></int:CLEVERINGSADRES>
        <int:CLEVERINGSDATUMGEWENST>1980-01-01</int:CLEVERINGSDATUMGEWENST>
        <int:CMUNT>EUR</int:CMUNT>
        <int:CPRIORITEIT>1</int:CPRIORITEIT>
        <int:CONZEREFERENTIE></int:CONZEREFERENTIE>
        <int:CTERATTENTIEVAN></int:CTERATTENTIEVAN>
        <int:CUWREFERENTIE></int:CUWREFERENTIE>
        <int:CVOLLEDIG>0</int:CVOLLEDIG>
        <int:CDOCUMENTGROEP>WEBORDER</int:CDOCUMENTGROEP>
      </int:pOrder>
      <int:pOrderLines>
        <!--Zero or more repetitions:-->
        <int:row>
          <int:CLIJNNUMMER>1</int:CLIJNNUMMER>
          <int:CARTIKEL>7002</int:CARTIKEL>
          <int:CKLEUR></int:CKLEUR>
          <int:CMAAT></int:CMAAT>
          <int:CARTIKELBARCODE></int:CARTIKELBARCODE>
          <int:COMSCHRIJVING>GSM</int:COMSCHRIJVING>
          <int:CAANTAL>1</int:CAANTAL>
          <int:CAANTALFACTOR>0</int:CAANTALFACTOR>
          <int:CEENHEIDVERKOOP></int:CEENHEIDVERKOOP>
          <int:CVERKOOPPRIJS>100.0000</int:CVERKOOPPRIJS>
          <int:CVERKOOPPRIJSOPHALEN>1</int:CVERKOOPPRIJSOPHALEN>
          <int:CLIJNKORTINGPERCENTAGE>0.00</int:CLIJNKORTINGPERCENTAGE>
          <int:CBEDRAG>100.00</int:CBEDRAG>
          <int:CLEVERINGSDATUMGEWENST>1980-01-01</int:CLEVERINGSDATUMGEWENST>
        </int:row>
      </int:pOrderLines>
      <int:pOrderPayments>
        <!--Zero or more repetitions:-->
        <int:row>
          <int:CLIJNNUMMER>1</int:CLIJNNUMMER>
          <int:CBEDRAG>100.00</int:CBEDRAG>
          <int:CBETAALWIJZE></int:CBETAALWIJZE>
          <int:CCASH>1</int:CCASH>
          <int:CDATUM>2013-07-13T00:00:00.0Z</int:CDATUM>
          <int:CMUNT>EUR</int:CMUNT>
          <int:COMSCHRIJVING></int:COMSCHRIJVING>
        </int:row>
    </int:CreateBestellingLite>
  </soapenv:Body>
</soapenv:Envelope>
```

```

    </int:pOrderPayments>
  </int:CreateBestellingLite>
</soapenv:Body>
</soapenv:Envelope>

```

The response below indicates that the order has successfully been added to Dave.

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soap:Body>
    <CreateBestellingLiteResponse xmlns="http://localhost:5912/davewslink/integration.wsdl">
      <return>
        <status>1</status>
        <timestamp>2013-07-18T11:02:25.0Z</timestamp>
        <errcode>0</errcode>
        <errdesc/>
        <count>1</count>
        <data>>true</data>
      </return>
    </CreateBestellingLiteResponse>
  </soap:Body>
</soap:Envelope>

```

## 4.6. Searching sales orders

Web Service: SearchBestellingen

The request below searches for all open Orders for the client with code '1085'.

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:int="http://localhost:5912/davewslink/integration.wsdl">
  <soapenv:Header/>
  <soapenv:Body>
    <int:SearchBestellingen>
      <int:_connectionid>@@@@@@@@@@@@@@@@FQS@QH@A@EAGAH@QIE</int:_connectionid>
      <int:pCINTERNEFIRMA>JUSTDECO</int:pCINTERNEFIRMA>
      <int:pCINTERNEFIRMAVESTIGING>DILBEEK</int:pCINTERNEFIRMAVESTIGING>
      <int:pSelections>
        <int:CCONTACT>1085</int:CCONTACT>
        <int:CNUMMER>0</int:CNUMMER>
        <int:CNUMMERTOT>0</int:CNUMMERTOT>
        <int:CDATUM>1980-01-01</int:CDATUM>
        <int:CDATUMTOT>1980-01-01</int:CDATUMTOT>
        <int:CVERTEGENWOORDIGER></int:CVERTEGENWOORDIGER>
        <int:CONZEREFERENTIE></int:CONZEREFERENTIE>
        <int:CUWREFERENTIE></int:CUWREFERENTIE>
        <int:COPENSTAAND>1</int:COPENSTAAND>
      </int:pSelections>
    </int:SearchBestellingen>
  </soapenv:Body>
</soapenv:Envelope>

```

The response indicates with status=1 that the search was succesfull and gives back one Order "B/10309" that is already reserved.

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soap:Body>
    <SearchBestellingenResponse xmlns="http://localhost:5912/davewslink/integration.wsdl">
      <return>
        <status>1</status>
        <timestamp>2013-07-20T18:35:38.0Z</timestamp>

```



```
<errcode>0</errcode>
<errdesc/>
<count>1</count>
<data>
  <row>
    <CINTERNEFIRMA>JUSTDECO</CINTERNEFIRMA>
    <CINTERNEFIRMAVESTIGING>DILBEEK</CINTERNEFIRMAVESTIGING>
    <CNUMMER>10309</CNUMMER>
    <CPREFIX>B/</CPREFIX>
    <CDATUM>2013-07-18</CDATUM>
    <CCONTACT>1085</CCONTACT>
    <CNAAM1>Onder de Kerk</CNAAM1>
    <CBEDRAGEXCL>7395.0</CBEDRAGEXCL>
    <CBEDRAGINCL>8947.95</CBEDRAGINCL>
    <CMUNT>EUR</CMUNT>
    <CVERVALDATUM>1980-01-01</CVERVALDATUM>
    <CVERTEGENWOORDIGER>ELLEN</CVERTEGENWOORDIGER>
    <CSTATUSPERCENTAGE>46</CSTATUSPERCENTAGE>
    <CSTATUS1>Gereserveerd</CSTATUS1>
    <CSTATUS2>Reservé</CSTATUS2>
    <CSTATUS3>Reserved</CSTATUS3>
    <CSTATUS4>Reserviert</CSTATUS4>
    <CGEVERIFIEERD>>false</CGEVERIFIEERD>
    <CONZEREFERENTIE/>
    <CUWREFERENTIE/>
    <CDOCUMENTGROEP/>
  </row>
</data>
</return>
</SearchBestellingenResponse>
</soap:Body>
</soap:Envelope>
```

## 5.Scenario's

A different structure is needed based on business requirements of the client. There are basically 2 directions of data transfer in the Dave Web Services. From Dave to an external program/website and vice versa.

### 5.1. Website

You want to show a list of your articles with matching images and prices on your website. In this case you only need to get data out of Dave and into the database of the website.

Once you have all the basic data, you can start to develop the website-interface to add items to your basket. Whether the website uses a Content Management System (CMS) or not, does not change the connection to the web services.

### 5.2. Webshop

Not only does your webshop need to show the articles from DAVE (see Website), but it also needs to register orders. Setting up a webshop for online ordering requires a bit more setup and decisions to make.

Examples of items you need to discuss with your customer:

- where will the login-passwords stored? In a website portal or in a Dave extra field?
- does the numbering of the orders come from the webshop or Dave?
- ...

For a webshop you best consider the following setup:

First you request customer- and article-information out of Dave with Sync-requests on a regular basis (daily, hourly, ...). When a customer requests the stock of a specific article inside the webshop, you can do a Live Get-request to check an up-to-date stock.

When the customer creates an order, this should first be stored inside the database of the webshop and then this can be sent to Dave with a Create-request.

In case you always work online, you only need the "Get" calls, but we suggest you maintain a separate database for the webshop. Because if orders are first registered in your webshop and there is a sudden loss of connection between the webshop and the Dave Web Services, then these orders will not be lost.

Warning: If the orders created in the webshop need to be created exactly the same way as in Dave (prices, discounts, ...), then you better contact Just Software for a detailed explanation.