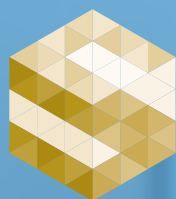


TECHNICAL DOCUMENTATION

API – APPLICATION PROGRAMMING INTERFACE

SOFTWARE MASTERWAY



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WHAT IS THE API AND HOW IT WORKS?

The **API** provides a great number of operations by an external system. Such as sending commercial documents, accounting documents, etc. For that the external system has developed the same means of communication to send and receive data. The communication between Masterway API and the external system is performed via XML.

The Communication is achieved through CURL or SOAP to a WSDL address:
<http://app.masterway.net/?action=apisoap&wsdl>

Sample communication in PHP with SOAP

```
$url = https://app.masterway.net/?action=apisoap&wsdl;
$xml = FicheiroEnvio.xml;

$client = new nusoap_client($url);
$result = $client->call('ComercialDocs', array('parameter'=>$xml));
```

Sample communication in PHP with CURL

```
$url = https://app.masterway.net/?action=apisoap&wsdl;
$linkfile = FicheiroEnvio . xml;
$xml = file_get_contents($linkfile);

$xml_post_string = '<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
                xmlns:xsd="http://www.w3.org/2001/XMLSchema"
                xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <AccountingDocs> // FUNCTION TO CALL
      ' . utf8_encode($xml) . '
    </AccountingDocs>
  </soap:Body>
</soap:Envelope>';
$headers = array(
  "Content-type: text/xml;charset=\\"utf-8\\"",
  "Accept: text/xml",
  "Cache-Control: no-cache",
  "Pragma: no-cache",
  "SOAPAction: ",
  "Content-length: " . strlen($xml_post_string),
);
```

```
$ch = curl_init();
curl_setopt($ch, CURLOPT_SSL_VERIFYPEER, 0);
curl_setopt($ch, CURLOPT_URL, $url);
curl_setopt($ch, CURLOPT_RETURNTRANSFER, true);
curl_setopt($ch, CURLOPT_HTTPAUTH, CURLAUTH_ANY);
curl_setopt($ch, CURLOPT_TIMEOUT, 5000);
curl_setopt($ch, CURLOPT_POST, true);
curl_setopt($ch, CURLOPT_POSTFIELDS, $xml_post_string);
curl_setopt($ch, CURLOPT_HTTPHEADER, $headers);
$result = curl_exec($ch);
```

WHAT IS THE API KEY?

In order to communicate with the API is necessary to generate one **API KEY** based on an **API Secret** password written by the user in the platform. The **API Key** is a sequence of encrypted characters, nontransferable that uniquely identifies the user, when the authentication is made. The **API Secret** is not recorded in the system, we advise you to save it with you. If you forget the **API Secret**, you must generate another **API KEY**.

ADDRESS PARAMETERS [GET]

- testmode=true

Invoking the parameter **testmode** all instructions sent to the webservice will run in a simulation environment. The test mode environment will behave like the production webservice but it won't write anything in the system.

Example:

```
$url = https://app.masterway.net/?action=apisoap&wsdl&testmode=true&wsdl;
```

FUNCTIONS

- ComercialDocs

Invoking ComercialDocs function, the API enables the creation of business documents, if the entities and products in the document are not open in system, they will be automatically created. All documents that are contained in the tag <Commercial> sending file are handled by the system.

- AccountingDocs

Invoking AccountingDocs function, the API enables the creation of accounting documents, the system will automatically open diaries, accounts, cash flow, VAT codes, dimensions and cost centers if they are not open in the system. All documents that are contained in the tag <Accounting> sending file are handled by the system.

- EditAccountingDocs

Invoking EditAccountingDocs function, the API enables the edition of accounting documents, the system will automatically open daily, accounts, cash flow, VAT codes, dimensions and cost centers if they are not open in the system. All documents that are contained in the tag <Accounting> sending file are handled by the system. Documents can be changed by reference <Reference> or document keys:

<CompanyCode> <Year> <Journal> <DocumentNumber>

- DeleteAccountingDocs

Invoking DeleteAccountingDocs function, the API deletes accounting documents by reference

<Reference> or document keys:

<CompanyCode> <Year> <Journal> <DocumentNumber> All documents that are contained in the tag <Accounting> sending file are handled by the system.

Functions are constantly being updated, however if you need some method, leave your suggestion in
helpdesk@masterway.net

FILE SPECIFICATIONS [XML]

| XML TAG | Level | XML Previous TAG | Required Tag | Comments |
|----------------|-------|------------------|--------------|---|
| APIData | 1 | | X | |
| Header | 2 | APIData | X | |
| APIKey | 3 | Header | X | Generated key in the User Profile / TAB API |
| APISecret | 3 | Header | X | Password used to generate the key (API Key) |
| Comercial | 2 | Header | * | Required if Commercial Docs method is invoked |
| FT_V (Example) | 3 | Comercial | * | Document types: Sales: - FT_V: Invoice; - NC_V: Credit note; - FPF_V: Invoice draft; - ENC_V: Order; - ENCO_V: Online Order. Purchases: - ENC_C: Order - FT_C: Invoice - DP_C: Expense - NC_C: Credit Note - ND_C: Debit Note |
| Document | 4 | FT_V | X | This tag is repeated depending on the number of documents to be sent |
| CompanyCode | 5 | Document | X | Company Code in System |
| Serie | 5 | Document | X | Document Serie |
| DocumentDate | 5 | Document | X | Document Date |
| Entity | 5 | Document | X | |
| EntityCode | 6 | Entity | X | Entity Code |
| EntityName | 6 | Entity | * | Entity name. Required if it is a new entity in the system. |
| EntityTypeCode | 6 | Entity | X | Entity type code: - CN: Client; - F: Supplier. |
| TaxID | 6 | Entity | * | Entity Tax Identification number. |
| Country | 6 | Entity | * | Entity country code. (Example: PT) |
| Classification | 6 | Entity | * | Entity Classification. Required if it is a new entity in system. CF – Final Consumer E - Company |
| VATType | 6 | Entity | * | VAT Type. Required if it is a new entity in system. I – Country in EU NS - Not subject to VAT PAIS-TER - Foreign country outside EU PT - Portugal |

PT-AC - Açores
PT-MA - Madeira

| | | | | |
|-------------------|---|-------------|---|--|
| NotificationEmail | 6 | Entity | | Entity notification email |
| Address | 6 | Entity | X | |
| AddressDetail | 7 | Address | X | billing address |
| City | 7 | Address | X | City |
| PostalCode | 7 | Address | X | Postal Code |
| Country | 7 | Address | X | Country Code |
| ContactName | 7 | Address | | Contact Name |
| Phone | 7 | Address | | Phone |
| Fax | 7 | Address | | |
| Email | 7 | Address | | |
| Currency | 5 | Document | X | Currency Code |
| MaturityCode | 5 | Document | | Maturity Code |
| Discount | 5 | Document | | numeric field eg 50, document 50% Off |
| Transport | 5 | Document | | This tag can be used if you want the invoice to serve as transport guide. |
| StartDate | 6 | Transport | X | initial date of Transportation |
| EndDate | 6 | Transport | X | ending date of Transportation |
| Address | 6 | Transport | X | |
| AddressDetail | 7 | Address | X | Address |
| City | 7 | Address | X | City |
| PostalCode | 7 | Address | X | Postal Code |
| Country | 7 | Address | X | Country Code |
| ContactName | 7 | Address | | Contact Name |
| Phone | 7 | Address | | Phone |
| Fax | 7 | Address | | |
| Email | 7 | Address | | |
| Observations | 5 | Document | | Document Observations |
| Lines | 5 | Document | X | |
| ProductLine | 6 | Lines | * | Required atleast one line. This tag can be repeated by the number of prodcts the document contains. |
| LineNumber | 7 | ProductLine | X | Line Number |
| ProductType | 7 | ProductLine | * | Product Type. Required if it is a new product in system. I - Tax O - Other P - Product S - Service |

| | | | | |
|----------------------|---|-------------|---|---|
| ProductInventoryType | 7 | ProductLine | * | Product Inventory Type. Required if it is a new product in system, unless the product type is a service. A - finished and intermediate products M - Goods P - Raw materials and consumables S - Waste and scrap T – Products or Work in progress |
| ProductDescription | 7 | ProductLine | X | Product name |
| Quantity | 7 | ProductLine | X | Quantity |
| UnitOfMeasure | 7 | ProductLine | * | Unit of measure. Required if it is a new product in system, |
| UnitPrice | 7 | ProductLine | X | Unit Price |
| Discount | 7 | ProductLine | | ex : 50 document with 50% Off |
| Tax | 7 | ProductLine | X | |
| TaxCode | 8 | Tax | X | VAT rates: INT - Mid IS - Stamp tax ISE - Exempt NOR - Normal NS - Not subject to VAT RED - Reduced |
| TaxRegion | 8 | Tax | X | VAT Regions: PT - Portugal PT-AC - Açores PT-MA - Madeira |
| ExemptionReasonCode | 8 | Tax | * | Exemption reasons. Required if the type of VAT is ISE - Exempt |
| Operatives | 7 | Lines | * | Only required to move operative lines of documents |
| OperativeCode | 8 | Operatives | X | Operative to move, can be repeated as often as necessary |
| TextLine | 6 | Lines | * | Required if it is a Text Line. This tag can be repeated. |
| LineNumber | 7 | TextLine | X | Line Number |
| Text | 7 | TextLine | X | Text |
| Operatives | 5 | Document | * | Only required to move operative lines of documents |
| OperativeCode | 6 | Operatives | X | Operative to move, can be repeated as often as necessary |
| Accounting | 2 | Header | * | Required if Accounting Docs method is invoked |
| Document | 3 | Accounting | X | This tag is repeated depending on the number of documents to be sent. |
| Reference | 4 | Document | | Reference to the document. The reference must be unique within the database and if it's not sended the system will generate one. |
| CompanyCode | 4 | Document | X | Company Code |
| Journal | 4 | Document | X | Journal Code |
| JournalDescription | 4 | Document | | Journal Description |
| Year | 4 | Document | X | Year |

| | | | | |
|----------------------|---|----------------------|---|--|
| Period | 4 | Document | X | Period |
| Currency | 4 | Document | X | Currency |
| ProcessingDate | 4 | Document | X | Processing Date |
| DocumentDate | 4 | Document | X | Document Date |
| Observations | 4 | Document | | Observations |
| Line | 4 | Document | X | This tag is repeated depending on the number of rows containing the document |
| AccountID | 5 | Line | X | Accounting account |
| AccountDescription | 5 | Line | | Account Description |
| MovementType | 5 | Line | X | Movement Type D - Debit C - Credit |
| CashFlow | 5 | Line | * | Cash Flow |
| CashFlowDescription | 5 | Line | | Cash Flow Description |
| VatCode | 5 | Line | * | VAT Code |
| VatCodeDescription | 5 | Line | | VAT Code Description |
| ExclusionReason | 5 | Line | | Exclusion reasons for IES 1 - The transactions exempted under # 27 of Article 9 of the VAT Code (banking and financial transactions) 2 - The transactions exempted under # 28 of Article 9 of the VAT Code (insurance and reinsurance), except for the provision of related services performed by insurance brokers and insurance 3 - The operations referred to in paragraphs b), c), d) and e) of paragraph 1 of Article 21 of the VAT Code 4 - The operations referred to in paragraph 24 of Article 9 of the VAT Code, with the exception of sales commissions (postage stamps in circulation or stamps) 5 - Community transport, when the buyer is an entity non-resident without permanent establishment which are attributable 6 - Intra-Community Transmissions, exports and transactions treated as exports if the buyer is an entity non-resident without permanent establishment which are attributable 7 - Sales made to individuals allocate goods and or services for private use |
| OperationType | 5 | Line | | Recapitulative operation 1 - Not matched in type 4 4 - Triangular operations 5 - Services Rendered |
| LineDescription | 5 | Line | X | Description Line |
| Observations | 5 | Line | | Observations |
| Amount | 5 | Line | X | Valor |
| AnalyticalAccounting | 5 | Line | * | Analytical Accounting |
| Line | 6 | AnalyticalAccounting | X | This tag is repeated depending on the number of rows that have this analytical movement |

| | | | | |
|-----------------------|---|------|---|-------------------------|
| Dimension | 7 | Line | X | Dimension |
| DimensionDescription | 7 | Line | | Dimension Description |
| CostCenter | 7 | Line | X | Cost Center |
| CostCenterDescription | 7 | Line | | Cost Center Description |
| Amount | 7 | Line | | Valor |

RESPONSE [WSDL OBJECT]

The **API** handles all the information from the dispatch of the file and returns an array / object specified in WSDL:

```
[Errors]
{
  [Reference]
  [Msg]
}

[Imports]
{
  [Reference]
  [CompanyCode]
  [Year]
  [DocumentType]
  [Serie]
  [Journal]
  [DocumentNumber]
}

[Confirmation]
{
  [Reference]
  [CompanyCode]
  [Year]
  [Journal]
  [DocumentNumber]
}

[Information]
{
  [Reference]
  [Msg]
}
```

- ERROS

The Errors object fully informs what mistakes were triggered for any of the intended operations.

| KEY | KEY Level | Previous KEY | Required KEY | Comments |
|-----------|-----------|--------------|--------------|-------------------------------------|
| Errors | 1 | | X | |
| Reference | 2 | Errors | X | Reference to Document |
| Msg | 2 | Errors | X | This KEY contains the error detail. |

- IMPORTS

The Imports object returns the information that was imported into the platform.

| KEY | KEY Level | Previous KEY | Required KEY | Comments |
|----------------|-----------|--------------|--------------|--|
| Imports | 1 | | X | |
| Reference | 2 | Imports | X | Reference to the document in the Send file |
| CompanyCode | 2 | Imports | X | Company Code |
| DocumentType | 2 | Imports | * | Document Type. The KEY will be used only in Business Documents |
| Serie | 2 | Imports | * | Series. The KEY will be used only in Business Documents |
| Year | 2 | Imports | * | Exercise. The KEY will be used only in accounting documents |
| Journal | 2 | Imports | * | Journal. The KEY will be used only in accounting documents |
| DocumentNumber | 2 | Imports | X | Document number |

- CONFIRMAÇÕES

The object Confirmation confirms that a particular document was subject to a certain action / function.

| KEY | KEY Level | Previous KEY | Required KEY | Comments |
|----------------|-----------|--------------|--------------|--|
| Confirmation | 1 | | X | |
| Reference | 2 | Confirmation | X | Reference to the document in the Send file |
| CompanyCode | 2 | Confirmation | X | Company Code |
| DocumentType | 2 | Confirmation | * | Document Type. The KEY will be used only in Business Documents |
| Serie | 2 | Confirmation | * | Series. The KEY will be used only in Business Documents |
| Year | 2 | Confirmation | * | Exercise. The KEY will be used only in accounting documents |
| Journal | 2 | Confirmation | * | Journal. The KEY will be used only in accounting documents |
| DocumentNumber | 2 | Confirmation | X | Document Number |

- INFORMAÇÕES

The Information object has additional information when it invokes a certain action / function

| KEY | KEY Level | Previous KEY | Required KEY | Comments |
|-------------|-----------|--------------|--------------|-----------------------|
| Information | 1 | | X | |
| Reference | 2 | Information | X | Reference to Document |
| Msg | 2 | Information | X | Detail |



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