

The Merit Aktiva API allows 3rd party developers to expand and build on the Merit Aktiva platform.

The Merit Aktiva API is a RESTful API that is used to access Merit Aktiva companies using HTTP and JSON. The API makes it easy to create web, mobile and desktop applications that integrate with your account.

Some potential application ideas:

- Manage customer and vendor databases.
- Manage sales-side and purchase-side transactions.
- Data analysis
- Custom integrations for data import and export

Overview

Service URL

The Merit Aktiva API has a single point of entry:

<https://aktiva.merit.ee/api/v1/>

Please note the use of `https://` in the URL above. *ALL Merit Aktiva API communication is encrypted over HTTPS.* Any non-secure requests are automatically rejected.

Request Limits

There are no limit on the number of API requests per day. However, requests will be rate-limited if too many calls are made within a short period of time. Additionally, a maximum of 100 results will be returned for growing list methods.

Representation Formats

All Merit Aktiva API requests are composed of JSON and delivered as an HTTP POST request to the endpoint URL.

- All JSON should be UTF-8 encoded.
- Date and time values are of the form `yyyyMMddHHmmss`.
- Dot (.) is used as a decimal separator.

- Booleans are either “true” or “false”, lowercase (not 1 or 0).
- Empty values, represented as null should be lowercase.
- Fields denoting percentages are passed as whole values, not decimals (e.g. 5 for five percent).

Successful responses

Successful response is represented as JSON with response code 200. In many cases, when needed and possible, response will also include details of fulfilled requests (like added invoice id or customer id).

Unsuccessful responses

In the case of a failure response, the response body will contain the error code and one or more error messages. The error codes can either be 400 or 401.

If the error code is 400, the data sent to the API is not appropriate. Message tag will give you more info about what went wrong.

In case of the error 401, either ApiId or the signature were incorrect. It could also be that someone has meanwhile changed the API ID and Api Key for security reasons thus making the “old” IDs and Keys obsolete.

Authentication

For your company, you’ll be given a unique Api ID and Api Key. The admin user can generate and reset API ID and Key on the My Account page (Program Settings).

Keep your Api ID and Api Key secret. They should be guarded just as you would your regular account password. If you feel your ID and Key has been compromised, you can reset it by clicking the “Generate” button on the “My Account” page.

For every API request you make, you’ll need to include ApiID, timestamp and signature as request parameters.

Signature is in Base64 format and is calculated using your ApiKey with HMAC-SHA-256, based on the ApiID+timestamp+RequestJSON.

Creating Sales Invoices

Service URL:

<https://aktiva.merit.ee/api/v1/sendinvoice>

Elements for Adding Invoices:

Customer Object		
Field Name	Type	Comment
Id	Guid	If filled and customer is found in the database then following fields are not important. If not found, the customer is added using the following fields.
Name	Str 150	Required when customer is added
RegNo	Str 30	
NotTDCustomer	Bool	Required when customer is added. True for physical persons and foreign companies.
VatRegNo	Str 30	
CurrencyCode	Str 4	
PaymentDeadLine	Int	If missing then taken from default settings.
OverDueCharge	Decimal 5.2	If missing then taken from default settings.
Address	Str 100	
City	Str 100	
Country	Str 100	
PostalCode	Str 15	
CountryCode	Str 2	Required when adding
PhoneNo	Str 50	
PhoneNo2	Str 50	
HomePage	Str 80	
Email	Str 80	

Article (Item) Object		
Field Name	Type	Comment
Code	Str 20	Required
Description	Str 100	Required
Type	Int	1 = stock item, 2 = service, 3 = item. Required.
UOMName	Str 64	Name for the unit

VAT Object		
Field Name	Type	Comment
TaxCode	Str 16	Must be found in the company database
Amount	Decimal 18.2	

Payment Object		
Field Name	Type	Comment
PaymentMethod	Str 150	Name of the payment method. Must be found in the company database.
PaidAmount	Decimal 18.2	
PaymDate	Date	

InvoiceRow Object		
Field Name	Type	Comment
Item	Article Object	
Quantity	Decimal 18.3	
Price	Decimal 18.7	
DiscountPct	Decimal 18.2	
DiscountAmount	Decimal 18.2	
TaxCode	Str 16	Must be found in the company database
LocationCode	Str 20	Used for stock items and multiple stocks. If used then must be found in the company database.

Invoice Object		
Field Name	Type	Comment
Customer	Customer Object	
DocDate	Date	
DueDate	Date	

InvoiceNo	Str 35	
RefNo	Str 36	
CurrencyCode	Str 4	
DepartmentCode	Str 20	If used then must be found in the company database.
ProjectCode	Str 20	If used then must be found in the company database.
InvoiceRow	Array of InvoiceRow objects	
TaxAmount	Array of VAT objects	
RoundingAmount	Decimal 18.2	
TotalAmount	Decimal 18.2	Amount without VAT
Payment	Payment object	
Hcomment	String 4K	Comment before invoice rows
Fcomment	String 4K	Comment at the invoice footer

Sample for Adding the Invoices:

```

ApiId:      FC39B372-6659-41CD-9BE1-4EB16F190424
ApiKey:     LCxYRLnp7H4t2ZV9UJEH9SJVioZzyTHpmsHlecCQDbE=
Timestamp:  20161102123901
JSON:      {"Customer":{"Id":"43709319-f332-4791-a847-d7c20672d680","Name":"aktsiaselts Merit Tarkvara","RegNo":"10254977","NotTDCustomer":false,"VatRegNo":"EE100388907","CurrencyCode":"EUR","PaymentDeadline":7,"OverDueCharge":0.05,"RefNoBase":null,"Address":"Pärna 1","CountryCode":"EE","County":null,"City":"Põltsamaa","PostalCode":"48105","PhoneNo":null,"PhoneNo2":null,"HomePage":null,"Email":null},"DocDate":"\\/Date(1474588800000)\\/","DueDate":"\\/Date(1475193600000)\\/","InvoiceNo":"1121","RefNo":"11219","CurrencyCode":"EUR","DepartmentCode":null,"ProjectCode":null,"InvoiceRow":[{"Item":{"Code":"010462","Description":"Omniva (Post24, Estonian Post) AIO extension for Wordpress WooCommerce","Type":1,"UOMName":"kg"},"Quantity":20.000,"Price":6.0000000,"DiscountPct":0.00,"DiscountAmount":0.00,"TaxCode":"20%","LocationCode":"1"}],"TotalAmount":120.00,"RoundingAmount":0.00,"TaxAmount":[{"TaxCode":"20%","Amount":20.00}],"Payment":null,"HComment":null,"FComment":null}

```

Using the above, the signature should be
1qmi5AtN3Wjjiyk894Zly6Pae2G6iZEGsvl9LjoNuYfQ=

And to post the invoice, the JSON should be posted using the following URL and parameters:

[https://aktiva.merit.ee/api/v1/sendinvoice?ApiId= FC39B372-6659-41CD-9BE1-4EB16F190424×tamp= 20161102123901&signature= WHSMOHozMeAmiZuczceq5R/MLlNhaJhrwo168G/mRl4=](https://aktiva.merit.ee/api/v1/sendinvoice?ApiId=FC39B372-6659-41CD-9BE1-4EB16F190424×tamp=20161102123901&signature=WHSMOHozMeAmiZuczceq5R/MLlNhaJhrwo168G/mRl4=)

Response to the successful request is something like this:

```
{"CustomerId":"665f01a4-357a-4a6b-a565-2f17e6e1da13","InvoiceId":"5f91033c-9d0f-416e-a079-d3c892b8c317","InvoiceNo":"1121","RefNo":"11219"}
```