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

The Merit Palk API is a RESTful API that is used to access Merit Palk 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:

- Data analysis
- Custom integrations for data import and export

Version 1.0

2020.06

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Overview

Service URL

The Merit Palk API has a single point of entry. The URL depends which localization the company is using:

For Estonian localization: https://Palk.merit.ee/api/v1/

Please note the use of https:// in the URL above.
All Merit Palk 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 Palk 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 values are of the form yyyy-mm-dd.
- 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.

Unsuccessful responses

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

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 Api ID or the signature were incorrect OR Merit Palk user have not upgraded to PRO package.
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 Program Settings 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.

List of Changes

Version 1.0 (2018.09):
- added new chapter about getting General Ledger transaction details;
- added two new absence types which can be created – type 9 and 10;

Version 1.0 (2019.03):
- added two elements for adding salaries - Cost Center and Project.
- API is only available for Merit Palk PRO package users.

Version 1.0 (2019.12)
- Added five NEW optional elements for creating absences: EndDate, AvgType, CustomSum, IncapStartDay and IncapPercent
- Whereas for creating absences all given fields were previously mandatory, now only with asterisk symbol (*) are mandatory and other are optional or ignored if the terms need.

Version 1.0 (2020.06)
- Added new chapter about getting Employee's list

Creating Salaries and Withholdings or adding Amounts for Base Salaries

Endpoint URL (POST):

Estonia: https://Palk.merit.ee/api/v1/sendsalary

Elements for Creating Salaries:

Salary Object		
Field Name	Type	Comment
ContractCode	Str 11	Contract's import code in Merit Palk system or employee's Personal ID Code
Typecode	Int	If positive – Salary Type Code in Merit Palk system. If negative - Withholding Type Code in Merit Palk system.
Tariff	Decimal 14.6	
Amount	Decimal 12.4	Amount – hours, days, months, pieces or percentage. Gross Amount of salary is calculated by multiplying Amount and Tariff. Ignored in Withholding.
DepCode	Str 32	Department Code. Ignored if missing.
CCCode	Str 32	Cost Center Code. Ignored if missing.
PrCode	Str 32	Project Code. Ignored if missing.
Month	Int	Active month.
Year	Int	Active year.
DocName	Str 64	Name or a number of the document.

Creating Absences

Endpoint URL (POST):

Estonia: https://Palk.merit.ee/api/v1/sendabsence

Elements for Adding Absences:

Asterisk symbol (*) indicates that fields are mandatory

Salary Object		
Field Name	**Type**	**Comment**
ContractCode*	Str 11	Contract's import code in Merit Palk system or employee's Personal ID Code
Typecode*	Int	1 – Annual Vacation 2 – Vacation pay compensation 3 – Child leave 4 – Extended annual vacation (minors and incapacity pensioners) 5 – Paternity leave 6 – Study leave 7 – Temporary incapacity ("sick leave") 8 – Child leave for parents of disabled child 9 – Leave on employer permission 10 – Carer's leave 1001 – Absent from work 1004 – Unpaid vacation 1005 – Child care leave 1006 – Leave for national service 1008 – Temporary incapacity (without employer's compensation) 1009 – Other (included in the working year) 1010 – Other (not included in the working year) 1011 – Child leave without pay
StartDate*	Date	Absence start date
AbsenceDays	Decimal 12.4	Number of absence days
Month*	Int	Active month.
Year*	Int	Active year.
DocName	Str 64	Name or number of the document.
EndDate	Date	Absence end date. Ignored if AbsenceDays has value.
AvgType	Int	1 – Six month average 2 – Continous 3 – Custom sum (CustomSum needed)
CustomSum	Decimal 12.4	Absence salary sum if AvgType = 3
IncapStartDay	Int	On which absence day of the incapacity, the compensation starts: 2 – on second day of incapacity 3 – on third day of incapacity 4 – on fourth day of incapacity
IncapPercent	Decimal 12.4	Incapacity compensation percent. Percent rate has to stay between 70 to 100.

Getting General Ledger Transaction Details

Endpoint URL (POST):

Estonia: https://Palk.merit.ee/api/v1/getglbatch

Elements for the GL Transaction Details request:

APIMonth Object		
Field Name	Type	Comment
Month	Str 6	YYYYMM

The result, if not empty:

Elements for General Ledger Transactions:

EntryRow Object		
Field Name	Type	Comment
AccountCode	Str 8	Must be found in the company database
DepartmentCode	Str 16	Must be found in the company database.
Debit	Decimal 18.2	
Credit	Decimal 18.2	
ProjectCode	Str 20	If used then must be found in the company database
CostCenterCode	Str 20	If used then must be found in the company database

GLBatch Object		
Field Name	Type	Comment
DocNo	Str 35	
BatchDate	Date	
EntryRow	Array of EntryRow objects	

Getting Employee's List

Endpoint URL (POST):

Estonia: https://Palk.merit.ee/api/v1/getemployees

The result, if not empty:

Elements for Employee's List

EntryRow Object		
Field Name	**Type**	**Comment**
FirstName	Str 32	
SurName	Str 16	
PersonalCode	Str 32	Employees personal ID code
BankAccountNo	Str 48	IBAN
A1E101ISO2Code	Str 2	Country's ISO2 code who has issued A1/E101 certification
Address	Str 64	
PhoneNo	Str 32	
Email	Str 64	
Language	Str 2	Employee's preferred reports language
TypeId	Int	Contract types: 1 – Employment contract (est "Tööleping") 2 – Board member contract (est "Juhatuse liikme leping") 5 – Contract of services (est "Töövõtuleping") 3 – Other contract 4 – No contract
StartDate	Date	Contracts start date
EndDate	Date	Contracts end date
ContractNo	Str 64	
TorId	Str 16	Employment ID in Register of Employment (est „Töötamise register e TÖR")
Gender	Str 5	Derived from employee's personal ID code
BirthDate	Date	Derived from employee's personal ID code
ImportCode	Int	

Examples in NodeJS how to use API

1) **Example on how to post the salaries and withholdings or adding amounts for base salaries:**

```javascript
var CryptoJS = require('crypto-js');
var request = require('request');

var reqJson = {
    ContractCode: '4',
    Typecode: 11,
    Tariff: 5.6,
    Amount: 152,
    DepCode: 'SL',
    Month: 5,
    Year: 2018,
    DocName: ' ',
};

var ApiId = 'Your-api-id';
var ApiKey = 'Your-api-key';

function pad2(n) {
  return n > 9 ? '' + n : '0' + n;
}

function getTimestamp() {
  var d = new Date();
  var yyyy = d.getFullYear();
  var MM = pad2(d.getMonth() + 1);
  var dd = pad2(d.getDate());
  var HH = pad2(d.getHours());
  var mm = pad2(d.getMinutes());
  var ss = pad2(d.getSeconds());
  return yyyy + MM + dd + HH + mm + ss;
}

var timestamp = getTimestamp();
var dataString = ApiId + timestamp + JSON.stringify(reqJson);
var hash = CryptoJS.HmacSHA256(dataString, ApiKey);
var signature = CryptoJS.enc.Base64.stringify(hash);

console.log(dataString);
console.log(hash);
console.log(signature);

var url = 'https://palk.merit.ee/api/v1/sendsalary' +
        '?ApiId=' + ApiId + '&timestamp=' + timestamp + '&signature=' + signature;

request({
        url: url,
        method: 'POST',
        json: true,
        headers: { 'content-type': 'application/json', },
        body: reqJson,
      },

      function (request, response) {
        console.log('Status code: ', response.statusCode, ' -- ',
response.statusMessage);
```

```
        console.log('Headers: ', response.headers['content-type']);
        console.log('Body: ', response.body);
      }
    );
```

2) Example on how to post absences:

```
var CryptoJS = require('crypto-js');
var request = require('request');

var reqJson = {
    ContractCode: '45805282756',
    Typecode: 1,
    StartDate: '2017-05-01',
    AbsenceDays: 10,
    Month: 5,
    Year: 2017,
    DocName: 'X',
};

var ApiId = 'Your ApiId ';
var ApiKey = 'Your ApiKey ';

function pad2(n) {
  return n > 9 ? '' + n : '0' + n;
}

function getTimestamp() {
  var d = new Date();
  var yyyy = d.getFullYear();
  var MM = pad2(d.getMonth() + 1);
  var dd = pad2(d.getDate());
  var HH = pad2(d.getHours());
  var mm = pad2(d.getMinutes());
  var ss = pad2(d.getSeconds());
  return yyyy + MM + dd + HH + mm + ss;
}

var timestamp = getTimestamp();
var dataString = ApiId + timestamp + JSON.stringify(reqJson);
var hash = CryptoJS.HmacSHA256(dataString, ApiKey);
var signature = CryptoJS.enc.Base64.stringify(hash);

console.log(dataString);
console.log(hash);
console.log(signature);


var url = 'https://palk.merit.ee/api/v1/sendabsence' +
        '?ApiId=' + ApiId + '&timestamp=' + timestamp + '&signature=' +
signature;

request({
        url: url,
```

```
      method: 'POST',
      json: true,
      headers: { 'content-type': 'application/json', },
      body: reqJson,
    },

    function (request, response) {
      console.log('Status code: ', response.statusCode, ' -- ',
response.statusMessage);
      console.log('Headers: ', response.headers['content-type']);
      console.log('Body: ', response.body);
    }
    );
```