



API documentation

Version 2.1

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Creating an API key

1. Login as administrator
2. Go to Admin/Company/Settings/API settings

API settings

Key reference:

API key: Will be auto generated upon submission

3. On this screen, enter a key reference – this can be anything and is simply a reference for your records and then click “Generate key” button at the bottom of the screen.

turalhr
FORMING BUSINESS

Home / Company / Api settings

API settings

Key reference:

API key: Will be auto generated upon submission

www.naturalhr.net says:
Are you sure? This will generate a new key which will revoke access for any prior keys.

4. You will then be presented with a popup asking you to confirm and once you click OK in the popup the key will be created and shown as below:

API settings

✓ API settings updated

Key reference:

API key:

Connection string:

You should ensure you keep your API key secure and do not share it publically. You should treat the key like your main admin password.

If, for any reason, you believe your key had been compromised then you should click “Revoke all keys” immediately and generate a new key

Please note

The API will work over HTTPS ONLY and will not work using HTTP – if you try to connect using HTTP, the connection will be refused. Additionally, the API key is case sensitive so please ensure you enter everything in lower case.

Limits

The API is limited to 50 calls per minute – if you exceed this limit your connection will be refused.

IP restrictions

If you wish to restrict your API to only work from a specific IP address, please contact us and we will set this up for you.

Making an API call

- The API is designed as a RESTful API
 - This means processes are done using GET, POST, PUT and DELETE.
- At the moment, only GET calls are publically available
 - If you need any POST, PUT or DELETE then please get in touch with us and we will discuss solutions
- To make a get call, you must construct your call within the web address
- In its simplest form you would call the API using:
 - [https://api01.naturalhr.net/2.0/\[METHOD\]/key/\[YOUR-GENERATED-KEY\]/format/\[FORMAT\]](https://api01.naturalhr.net/2.0/[METHOD]/key/[YOUR-GENERATED-KEY]/format/[FORMAT])
 - Method refers to the data you wish to retrieve – see Methods below
 - Your generated key should be replaced with your key which the system generated and which can be accessed at Company/Settings/API settings
 - Format is where you specify the format of the returned data – see Formats below
 - For example, if your key was 12345 and you wanted to view all employees and return the data as XML you would use:
 - <https://api01.naturalhr.net/2.0/employees/key/12345/format/xml>
 - If you wanted to return the same data as JSON then just change the format to JSON:
 - <https://api01.naturalhr.net/2.0/employees/key/12345/format/json>

Filtering returned data

- Optionally you can pass variables to the API to filter the returned data – for example, you might only want to see active employees
- Filters are only applicable when returning more than one record – for example, if you specify to only return one employee then you cannot use additional filters such as whether they are active and so on
- In this case you can pass these variables through the URL as below:
 - [https://api01.naturalhr.net/2.0/\[METHOD\]/key/\[YOUR-GENERATED-KEY\]/\[variable1\]/\[variable_value\]/\[variable2\]/\[variable2_value\]/format/\[FORMAT\]](https://api01.naturalhr.net/2.0/[METHOD]/key/[YOUR-GENERATED-KEY]/[variable1]/[variable_value]/[variable2]/[variable2_value]/format/[FORMAT])
- For example, using the above employee example – if you only wanted to see active employees then you would use:
 - <https://api01.naturalhr.net/2.0/employees/key/12345/status/1/format/json>
 - In this case we are filtering for status of 1 which indicates the employee is active
 - The Methods section will show each of the available filters and its values etc

Formats

- The API can return data as either JSON or XML.
 - For example, to return data as XML you would use `/format/xml`.
- If a format is not specified, the API will use JSON as the default

Error messages

Invalid API key – the API key you have entered is not valid

Unknown method – the method you have specified is not valid

If you see Error 5xx or something similar, this is an issue on our side and you should get in touch with support

Methods

- Methods refer to the types of data you wish to interact with.
- There are 9 main methods, most of which also have optional filters.
- As employee is the main unit in Natural HR, all the non-recruitment methods include the relevant employee details so you do not need to make 2 calls
- Additionally, all calls which are not specifically requesting the return of a single record will return a record count as the first item named COUNT

candidates

Structure

```
<count>
</count>
<candidates>
  <candidate>
    <documents>
      <document>
      </document>
    </documents>
  </candidate>
</candidates>
```

Filters

candidateId
status – 1 or 0
employed – 1 or 0

Fields

Field	Description	Possible values
id	Record id of the candidate	
postAppliedFor	The post ID of the post which the candidate applied for	
dateReceived	Date the candidate application was entered into Natural HR	
title	Candidate title	
lastName	Candidate last name	
firstName	Candidate first name	
otherNames	Candidate other names	
dob	Candidate Date of Birth	
nationalInsurance	Candidate National Insurance, Social Security or other tax identifier	
Address		
address2		
town		
county		
postcode		
country		
homeTelephone		

homeMobile

homeEmail

cv

nationality

maritalStatus

rightToWork

drivingLicense

accessCar

gender

dependants

ethnicity

disability

active

comments

enteredBy

enteredDate

stage

customQ1

customA1

customQ2

customA2

customQ3

customA3

customQ4

customA4

customQ5

customA5

customQ6

customA6

customQ7

customA7

customQ8

customA8

customQ9

customA9

customQ10

customA10

availableDate

starred

new

recruiterId

roleQ1

roleA1

roleQ2

roleA2

roleQ3

roleA3

roleQ4

roleA4

roleQ5

roleA5

jobTitleName

documents

Id

documentName

documentDescription

document

documentType

documentDate

mandatoryDocumentId

mandatoryDocumentName

expiryDate

uploadedBy

jobs

Structure

```
<count>
</count>
<jobs>
  <job>
  </job>
</jobs>
```

Filters

```
jobId
status – 1 or 0
archived – 1 or 0
approved – 1 or 0
filled – 1 or 0
managerLevel – 1 or 0
jobLevel – level ID
```

Fields

Field	Description	Possible values
id	Record id of the job role	
jobTitleId		
jobTitleName		
departmentId		
departmentName		
jobStatusId		
jobStatusName		
location		
salaryRange		
closingDate		
startDate		
contactName		
contactEmail		
contactTelephone		
internalReference		
datestamp		
active		
archived		
comments		
filledDate		
goLiveDate		
hiringManager		

approved

approvedBy

approvedDate

attachment

jobQ1

jobQ2

jobQ3

jobQ4

jobQ5

jobDescription

jobResponsibilities

jobQualifications

jobCompetencies

jobExperience

jobSalaryRange

jobBenefits

jobReportsTo

managerLevel

jobLevelId

jobLevelName

employees

Structure

```
<count>
</count>
<employees>
  <employee>
    <kin>
    </kin>
    <documents>
    </documents>
  </employee>
</employees>
```

Filters

employeeId
status – 1 or 0
managerLevel – 1 or 0
jobLevel – level ID
startDate1 – date in format yyyy-mm-dd
startDate2 – date in format yyyy-mm-dd
leaveDate1 – date in format yyyy-mm-dd
leaveDate2 – date in format yyyy-mm-dd
keyEmployee – 1 or 0

Fields

Field	Description	Possible values
employeeId	Record id of the employee	
worksId		
firstName		
lastName		
middleName		
address		
address2		
town		
county		
postcode		
country		
homeTelephone		
homeMobile		
homeEmail		
gender		
maritalStatus		
nationality		
ethnicity		
dob		

nationalInsurance

employeeEmail

managerId

managerFirstName

managerLastName

managerEmail

jobTitleId

jobTitleName

jobStatusId

jobStatusName

departmentId

departmentName

subDepartmentId

subDepartmentName

siteId

siteName

costCentre

pay

payType

entitlement

entitlementMeter

fte

workingDays

workingHours

hoursPerWeek

startDate

probationaryDate

noticePeriod

contractEndDate

statis

active

keyEmployee

kin

kin1name

kin1Relationship

kin1HomeTelephone

kin1WorkTelephone

kin1MobileTelephone

kin1EMail

kin2name

kin2Relationship

kin2HomeTelephone

kin2WorkTelephone

kin2MobileTelephone

kin2EMail

documents

id

documentName

documentDescription

document

documentType

documentDate

uploadedBy

public

mandatoryDocumentId

mandatoryDocumentName

expiryDate

categoryId

categoryName

signature

customfields

Structure

```
<count>
</count>
<custom>
  <item>
    <employee>
    </employee>
  </item>
</custom>
```

Filters

employeeId

Fields

Field	Description	Possible values
employeeId	Record id of the employee	
field1		
field2		
field3		
field4		
field5		
field6		
field7		
field8		
field9		
field10		
employee		
worksId		
firstName		
lastName		
dob		
nationalInsurance		
employeeEmail		
managerId		
managerFirstName		
managerLastName		

managerEmail

jobTitleId

jobTitleName

jobStatusId

jobStatusName

departmentId

departmentName

subDepartmentId

subDepartmentName

siteId

siteName

costCentre

startDate

status

active

keyEmployee

contractEndDate

leaveDate

allowanceshistory

Structure

```
<count>
</count>
<allowance>
  <item>
    <employee>
    </employee>
  </item>
</ allowance >
```

Filters

employeeId
approved – 1 or 0
changeDate1 – change date in format yyyy-mm-dd
changeDate2 – change date in format yyyy-mm-dd

Fields

Field	Description	Possible values
employeeId	Record id of the employee	
timeOffType		
value		
meter		
changeCode		
changeReason		
changeDate		
employee		
worksId		
firstName		
lastName		
dob		
nationalInsurance		
employeeEmail		
managerId		
managerFirstName		
managerLastName		
managerEmail		
jobTitleId		
jobTitleName		
jobStatusId		

jobStatusName

departmentId

departmentName

subDepartmentId

subDepartmentName

siteId

siteName

costCentre

startDate

status

active

keyEmployee

contractEndDate

leaveDate

jobhistory

Structure

```
<count>
</count>
<job>
  <item>
    <employee>
    </employee>
  </item>
</job>
```

Filters

employeeId
approved – 1 or 0
changeDate1 – change date in format yyyy-mm-dd
changeDate2 – change date in format yyyy-mm-dd

Fields

Field	Description	Possible values
employeeId	Record id of the employee	
jobTitleId		
jobTitleName		
jobStatusId		
jobStatusName		
contractType		
siteName		
departmentName		
subDepartmentName		
costCentre		
businessUnit		
managerName		
workingDays		
contractEndDate		
keyEmployee		
approved		
approvedBy		
changeCode		
changeReason		
changeDate		
employee		

worksId

firstName

lastName

dob

nationalInsurance

employeeEmail

managerId

managerFirstName

managerLastName

managerEmail

jobTitleId

jobTitleName

jobStatusId

jobStatusName

departmentId

departmentName

subDepartmentId

subDepartmentName

siteId

siteName

costCentre

startDate

status

active

keyEmployee

contractEndDate

leaveDate

salaryhistory

Structure

```
<count>
</count>
<salary>
  <item>
    <employee>
    </employee>
  </item>
</salary>
```

Filters

employeeId
approved – 1 or 0
changeDate1 – change date in format yyyy-mm-dd
changeDate2 – change date in format yyyy-mm-dd

Fields

Field	Description	Possible values
employeeId	Record id of the employee	
pay		
payType		
currency		
workingDays		
workingHours		
hoursPerWeek		
fte		
jobGrade		
approved		
approvedBy		
changeCode		
changeReason		
changeDate		
employee		
worksId		
firstName		
lastName		
dob		
nationalInsurance		
employeeEmail		

managerId

managerFirstName

managerLastName

managerEmail

jobTitleId

jobTitleName

jobStatusId

jobStatusName

departmentId

departmentName

subDepartmentId

subDepartmentName

siteId

siteName

costCentre

startDate

status

active

keyEmployee

contractEndDate

leaveDate

timesheets

Structure

```
<count>
</count>
<timesheets>
  <timesheet>
    <lines>
    </lines>
    <employee>
    </employee>
  </timesheet>
</timesheets>
</timesheets>
```

Filters

```
employeeId
timesheetId
accepted – 1 or 0
validated – 1 or 0
confirmed – 1 or 0
weekBeginning1 – date in format yyyy-mm-dd
weekBeginning2 – date in format yyyy-mm-dd
```

Fields

Field	Description	Possible values
id	Record id of the timesheet	
employeeId		
weekBeginning		
employeeComments		
managerComments		
employeeAccepted		
validated		
validatedBy		
confirmed		
lines		
id		
lineDate		
lineReference		
lineComments		
lineStart		
lineEnd		
lineBreaks		
employee		
worksId		

firstName

lastName

dob

nationalInsurance

employeeEmail

managerId

managerFirstName

managerLastName

managerEmail

jobTitleId

jobTitleName

jobStatusId

jobStatusName

departmentId

departmentName

subDepartmentId

subDepartmentName

siteId

siteName

costCentre

startDate

status

active

keyEmployee

contractEndDate

leaveDate

timetracking

Structure

<count>

</count>

<timetrackings>

 < timetracking>

 <employee>

 </employee>

 </ timetracking>

</ timetrackings>

Fields

Field	Description	Possible values
id	Record id of the timetracking entry	
employeeId		
date		
timeIn		
timeOut		
employee		
worksId		
firstName		
lastName		
dob		
nationalInsurance		
employeeEmail		
managerId		
managerFirstName		
managerLastName		
managerEmail		
jobTitleId		
jobTitleName		
jobStatusId		
jobStatusName		
departmentId		

departmentName

subDepartmentId

subDepartmentName

siteId

siteName

costCentre

startDate

status

active

keyEmployee

contractEndDate

leaveDate

timeoff

Structure

```
<count>
</count>
<timeoffs>
  <timeoff>
    <employee>
    </employee>
  </timeoff>
</timeoffs>
```

Filters

employeeId
timeoffId
authorised – 1 or 0
approved – 1 or 0
paid – 1 or 0
startDate1 – date in format yyyy-mm-dd
startDate2 – date in format yyyy-mm-dd
endDate1 – date in format yyyy-mm-dd
endDate2 – date in format yyyy-mm-dd

Fields

Field	Description	Possible values
id	Record id of the timeoff record	
employeeId		
timeoffType		
startDate		
endDate		
units		
meter		
approved		
datestamp		
employeeComments		
managerComments		
returnToWork		
approvedBy		
archived		
bradfordFactorOverride		
authorised		
paid		
employee		
worksId		
firstName		

lastName

dob

nationalInsurance

employeeEmail

managerId

managerFirstName

managerLastName

managerEmail

jobTitleId

jobTitleName

jobStatusId

jobStatusName

departmentId

departmentName

subDepartmentId

subDepartmentName

siteId

siteName

costCentre

startDate

status

active

keyEmployee

contractEndDate

leaveDate

training

Structure

```
<count>
</count>
<trainings>
  <training>
    <employee>
    </employee>
  </training>
</trainings>
```

Filters

employeeId
trainingId
approved – 1 or 0
mandatory – 1 or 0
result – 1 or 0
trainingDate1 – date in format yyyy-mm-dd
trainingDate2 – date in format yyyy-mm-dd

Fields

Field	Description	Possible values
id	Record id of the training record	
employeeId		
trainingDate		
mandatory		
trainingTitle		
trainingDescription		
duration		
internalExternal		
provider		
location		
cost		
costUnit		
approved		
result		
approvedBy		
employeeComments		
comments		
Evaluation		
trainingRating		
expiryDate		
employee		

worksId

firstName

lastName

dob

nationalInsurance

employeeEmail

managerId

managerFirstName

managerLastName

managerEmail

jobTitleId

jobTitleName

jobStatusId

jobStatusName

departmentId

departmentName

subDepartmentId

subDepartmentName

siteId

siteName

costCentre

startDate

status

active

keyEmployee

contractEndDate

leaveDate

expenses

Structure

```
<count>
</count>
<expenses>
  <expense>
    <lines>
    </lines>
    <employee>
    </employee>
    <payment>
    </payment>
  </expense>
</expenses>
```

Filters

employeeId
expenseId
status – 1 or 0
receiptStatus – 1 or 0
reportDate1 – date in format yyyy-mm-dd
reportDate2 – date in format yyyy-mm-dd

Fields

Field	Description	Possible values
id	Record id of the expense report	
employeeId		
reportName		
reportDescription		
reportDate		
value		
currency		
approver1Id		
approver1Date		
approver1Comments		
approver2Id		
approver2Date		
approver2Comments		
status		
accepted		
receiptStatus		
employee		

worksId

firstName

lastName

dob

nationalInsurance

employeeEmail

managerId

managerFirstName

managerLastName

managerEmail

jobTitleId

jobTitleName

jobStatusId

jobStatusName

departmentId

departmentName

subDepartmentId

subDepartmentName

siteId

siteName

costCentre

startDate

status

active

keyEmployee

contractEndDate

leaveDate

lines

id

lineTypeId

lineName

lineDate

lineVendor

lineExpensePaymentTypeId

lineExpensePaymentTypeName

lineAmount

lineTypeName

lineTypeCode

lineTypeVatRate

lineReceipts

lineComments

lineTimesheetReference

payments

id

paymentDate

paymentReference

paymentComments

paymentProcessedBy

mileage

Structure

```
<count>
</count>
<expenses>
  <expense>
    <lines>
    </lines>
    <employee>
    </employee>
  </expense>
</expenses>
```

Filters

```
employeeId
mileageId
status – 1 or 0
accepted – 1 or 0
reportDate1 – date in format yyyy-mm-dd
reportDate2 – date in format yyyy-mm-dd
```

Fields

Field	Description	Possible values
id	Record id of the mileage report	
employeeId		
reportName		
reportDescription		
reportDate		
distance		
units		
approver1Id		
approver1Date		
approver1Comments		
approver2Id		
approver2Date		
approver2Comments		
status		
accepted		
employee		
worksId		
firstName		
lastName		

dob
nationalInsurance
employeeEmail
managerId
managerFirstName
managerLastName
managerEmail
jobTitleId
jobTitleName
jobStatusId
jobStatusName
departmentId
departmentName
subDepartmentId
subDepartmentName
siteId
siteName
costCentre
startDate
status
active
keyEmployee
contractEndDate
leaveDate
lines
lineDistance
lineUnit
lineFrom
lineTo
lineDate
lineComments
lineCost