API USERMANUAL

BioTime 9.5

Date: **July 28, 2026**

Table of Contents

API Description **4**

1. Get System User AuthToken **4**

1.1 Get JWT AuthToken 4

1.2 Get General authtoken 5

2. Get Staff AuthToken **7**

2.1 Staff JWT authtoken 7

2.2 GetstaffGeneralAuthToken 7

3. Use AuthToken **7**

3.1 Demo 1 7

3.2 Demo 2 (with Third Party Tool - Postman) 8

4. Device API **8**

4.1 Get Device ListAPI 8

4.2 Get Device Object Info API 10

5. Employee API **11**

5.1 Get Employee ListAPI 11

5.2 Get Employee Object Info API 14

5.3 Create Employee API 15

5.4 Update Employee API 18

5.5 Delete Employee API 19

5.6 Lookup By Code Employee API 20

6. Resign API **21**

6.1 Get Resign Personnel List API 21

6.2 Get Resign Personnel Request API 21

6.3 Create Resign Personnel API 22

6.4 Update Resign Personnel API 23

6.5 Delete Resign Personnel API 24

6.6 Reinstatement Resign Personnel API 24

7. Department API **25**

7.1 Get Department List API 25

7.2 Get Department Object Info API 26

7.3 Create Department API 26
7.4 Update Department API 27
7.5 Delete Department API 27
7.6 Lookup By Code Department API 28
8. Area API 29
8.1 Get Area ListAPI 29
8.2 Get Area Object Info API 30
8.3 Create Area API 30
8.4 Update Area API 31
8.5 Delete Area API 32
8.6 Lookup By Code Area API 32
9. Position API 33
9.1 Get Position List API 33
9.2 Get Position Object Info API 34
9.3 Create Position API 34
9.4 Update Position API 35
9.5 Delete Position API 36
9.6 Lookup By Code Position API 36
10. Transaction API 37
10.1 GetTransaction List API 37
10.2 First & Last Punch Report API 38
10.3 First In Last Out Report API 39

API Description

BioTime 8.5 API is dedicated to the platform data connection for the third-party system. The third-party system can read and set business data flexibly, which effectively reduces the complexity of the third-party system business integration and provides convenient, fast standard connection mode and data structure.

1. Get System User AuthToken

There are two kinds of auth token for software system user: JWT auth token and general auth token.

1.1 Get JWT AuthToken

(1) Request Instruction

HTTPS Method	POST
URI	/jwt-api-token-auth/
Content Type	application/json
Response Type	JSON
Parameter Description	username: string, is required, the username to login the system. password: string, is required, the password to login the system.
Request Herders	{ "Content-Type":"application/json" }
Request Body	{ "username":"username", "password":"pwd" }

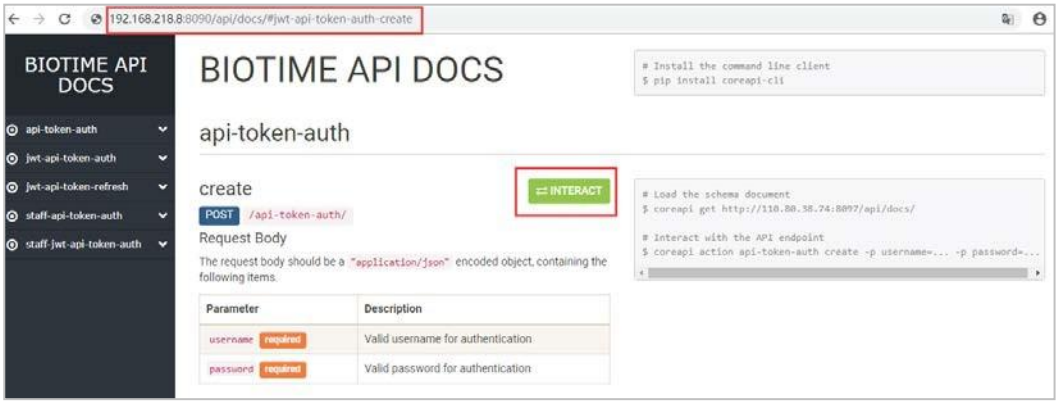
(2) How to GetToken

1) Get token via browser, input the following link in the browser:

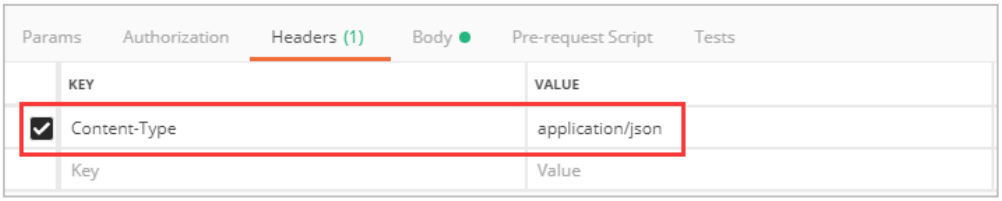
http://serverIP:serverPort/api/docs/#jwt-api-token-auth

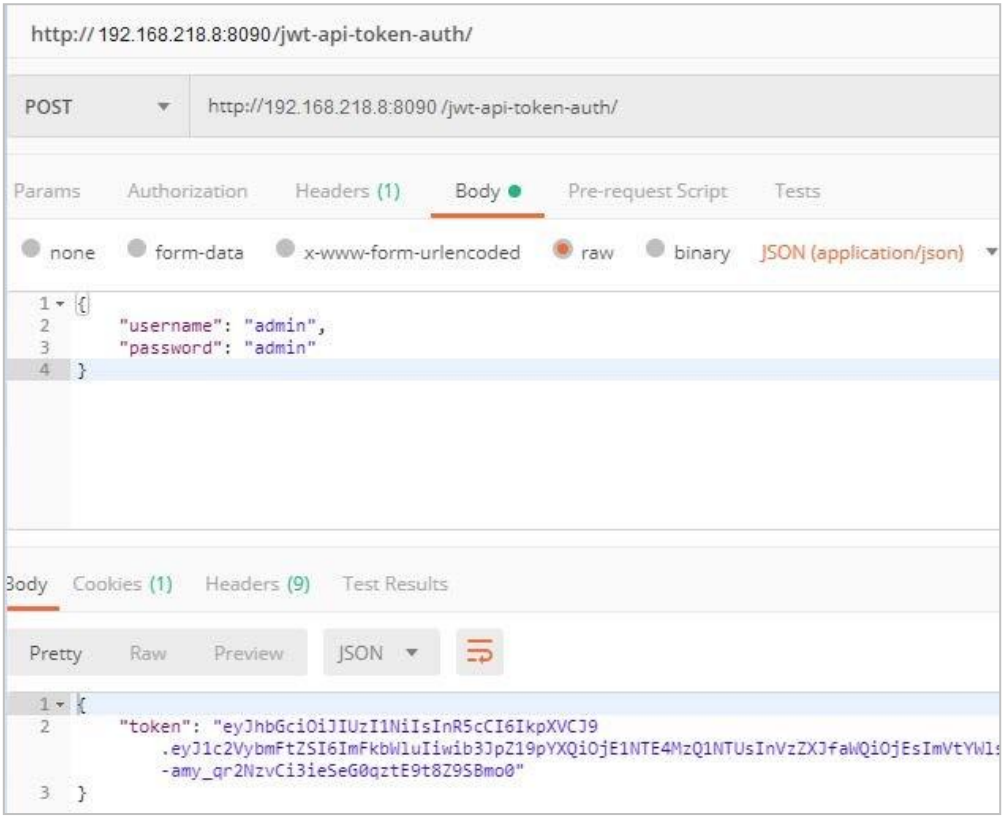
serverIP: BioTime 8.5 server or computer IP, such as: 192.168.218.8

serverPort: The server port of BioTime 8.5, such as: 8090



2) Get token via third-party, such as Postman.





1.2 Get General auth token

(1) Request Instruction

Same as getting JWT Token

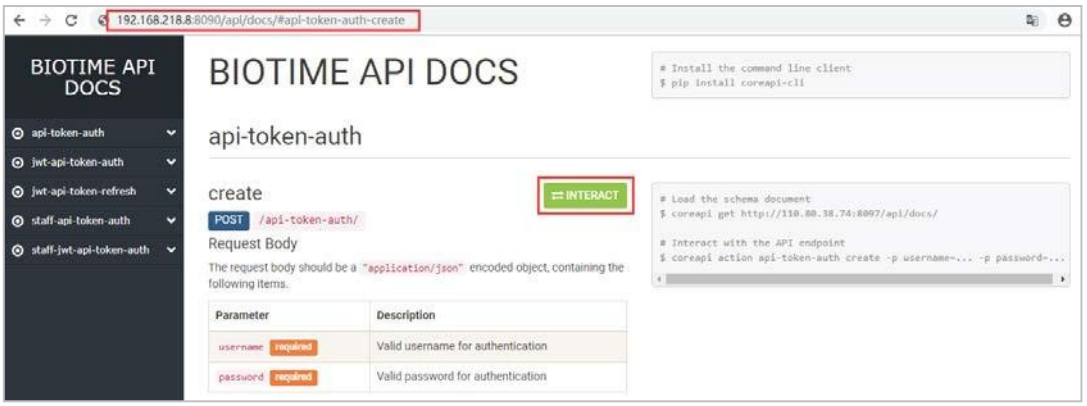
(2) How to GetToken

1) Get token via browser, input the following link in the browser:

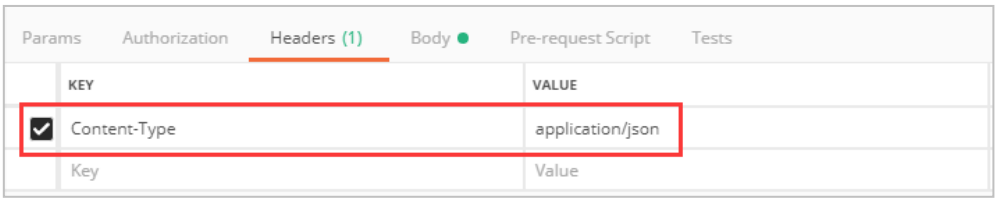
http://serverIP:serverPort/api/docs/#api-token-auth

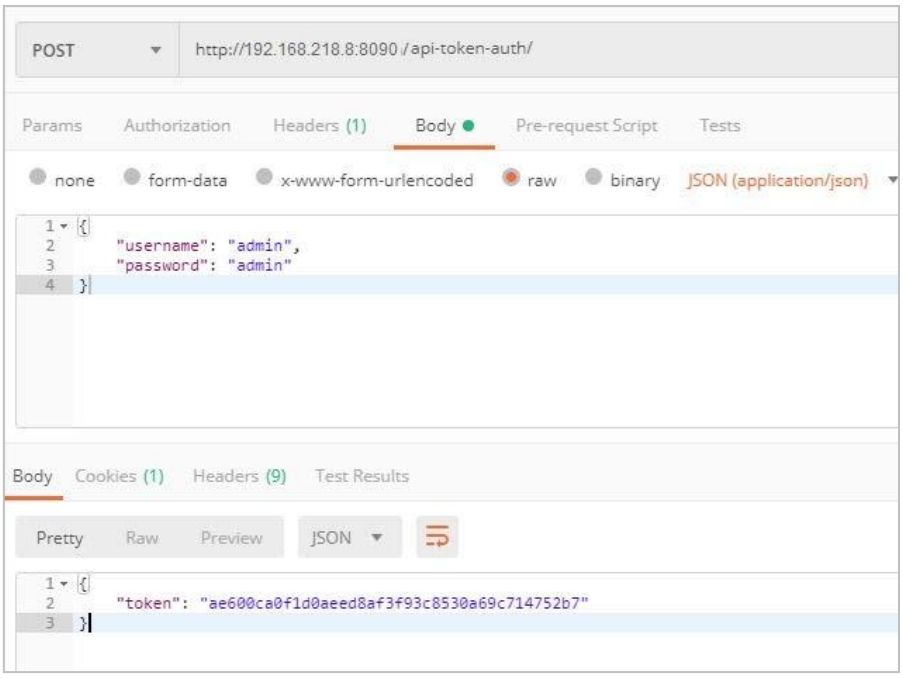
serverIP: BioTime 8.5 server or computer IP, such as: 192.168.218.8

serverPort: The server port of BioTime 8.5, such as: 8090



2) Get token via third-party API development tool, such as Postman.





2. Get Staff AuthToken

2.1 Staff JWT authtoken

URL:http://serverIP:serverPort/staff-jwt-api-token-auth/

serverIP: BioTime 8.5 server or computer IP

serverPort: The server port of BioTime 8.5

The way to get token is the same as JWT token above.

2.2 GetstaffGeneralAuthToken

URL:http://serverIP:serverPort/staff-api-token-auth/

serverIP: BioTime 8.5 server or computer IP

serverPort: The server port of BioTime 8.5

The way to get token is the same as JWT token above.

3. Use AuthToken

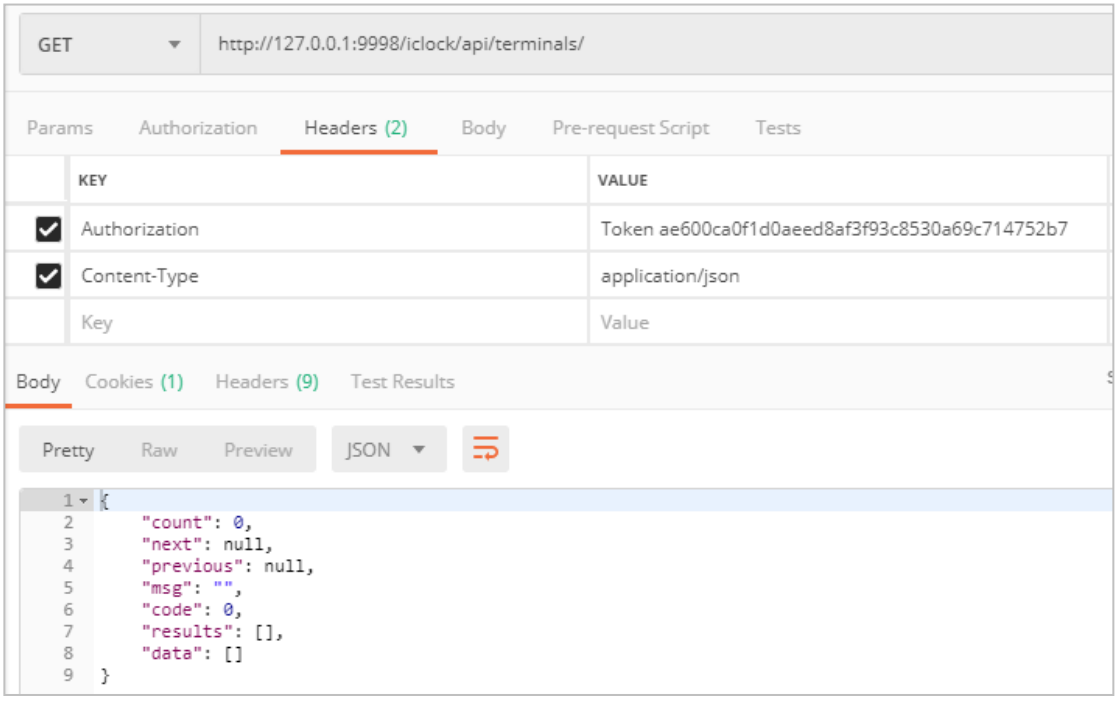
3.1 Demo 1

Request URL	**http://serverIP:serverPort/iclock/api/terminals/**
Request Herders	**JWT Token** { "Content-Type":"application/json", "Authorization":"JWTey.....oQi98" } **General Token** { "Content-Type":"application/json", "Authorization":"Token ae600ca0f1d0aeed8af3f93c8530a69c714752b7" }

Response Content	{ "count": 0, "next": null, "previous": null, "msg": "", "code": 0, "results": [], "data": [] }

3.2 Demo 2 (with Third Party Tool - Postman)

(1) Use General Token (same way to use JWT token)



4. Device API

4.1 Get Device ListAPI

HTTP Method	GET
URI	/iclock/api/terminals/
Data Type	application/json

Response Type	JSON
Request Address	http://serverIP:serverPort/iclock/api/terminals/?sn=**&page=**page_size=**&alias=**&area=** sn, page, page_siz, alias , area are optional filter field, use & as connector While the request address without any filter field, you will get all devices list.
Response JSON Format	Example: Request Address: http://192.168.217.8:8090/iclock/api/terminals/?sn=ACEZ185060382 Response: { "count": 1, "next": null, "previous": null, "msg": "", "code": 0, "data": [{ "id": 1, "sn": "ACEZ185060382", "ip_address": "127.0.0.1", "alias": "ACEZ185060382_name", "terminal_name": null, "fw_ver": null, "push_ver": "", "state": 1, "terminal_tz": 8, "area":{ "id": 1, "area_code": "1", "area_name": "Not Authorized" },

	"last_activity": null, "user_count": null, "fp_count": null, "face_count": null, "palm_count": null, "transaction_count": null, "push_time": null, "transfer_time": "00:00;14:05", "transfer_interval": 10, "is_attendance": true, "area_name": "Not Authorized" }] }

4.2 Get Device Object Info API

HTTP Method	GET
URI	/iclock/api/terminals/ <id>/
Data Type	application/json
Response Type	JSON
Request Address	http://serverIP:serverPort/iclock/api/terminals/device id/
Response JSON Format	Example: Request Address: http://192.168.218.8:8090/iclock/api/terminals/1/ Response: { "id": 1, "sn": "ACEZ185060382", "ip_address": "127.0.0.1", "alias": "ACEZ185060382_name",

```
        "terminal_name": null,
        "fw_ver": null,
        "push_ver": "",
        "state": 1,
        "terminal_tz": 8,
        "area": {
            "id": 1,
            "area_code": "1",
            "area_name": "Not Authorized"
        },
        "last_activity": null,
        "user_count": null,
        "fp_count": null,
        "face_count": null,
        "palm_count": null,
        "transaction_count": null,
        "push_time": null,
        "transfer_time": "00:00;14:05",
        "transfer_interval": 10,
        "is_attendance": true,
        "area_name": "Not Authorized"
}
```


5. Employee API

5.1 Get Employee ListAPI

HTTP Method	GET
URI	/personnel/api/employees/
Data Type	application/json
Response Type	JSON

Request Address	http://serverIP:serverPort/personnel/api/employee/?emp_code=**&page=**&first_name=**&last_name=**&department=**&app_status=** page, limit, emp_code, first_name, last_name, department, app_status are optional filter fields.
Response JSON Format	Example: Request Address: http://192.168.218.8:8090/personnel/api/employee/?emp_code=employee1 Response: { "count": 1, "next": null, "previous": null, "msg": "", "code": 0, "data": [{ "id": 5, "emp_code": "employee1", "first_name": "emp1_first_name", "last_name": "emp1_last_name", "nickname": "", "device_password": "", "card_no": "", "department": { "id": 1, "dept_code": "1", "dept_name": "Department" }, "dept_name": "Department", "position": null, "position_name": null, "hire_date": "2019-04-02",

```
"gender": "",
"birthday": null,
"verify_mode": null,
"emp_type": null,
"contact_tel": "",
"office_tel": "",
"mobile": "",
"national": "",
"city": "",
"address": "",
"postcode": "",
"email": "",
"enroll_sn": "",
"ssn": "",
"religion": "", "enable_att":
false, "enable_overtime":
false, "enable_holiday":
false, "dev_privilege":
null, "self_password":
"pbkdf2_sha256$36000$XIJACl8JIXWA$a4hztrK8RSMjBgd9sWL3lTMQS3O9Mz+QwaGU/RBiXRU=",
"flow_role": [], "area":
[
    {
        "id": 1,
        "area_code": "1",
        "area_name": "Not Authorized"
    }
],
"area_name": "Not Authorized",
"app_status": 0,
```

	"app_role": null }] }

5.2 Get Employee Object Info API

HTTP Method	GET
URI	/personnel/api/employees/ <id>/
Data Type	application/json
Response Type	JSON
Request Address	http://serverIP:serverPort/personnel/api/employees/employee ID/
Response JSON Format	Example: Request Address: http://192.168.218.8:8090/personnel/api/employees/6/ Response: { "emp_code": "employee333", "first_name": "emp3_first_name", "last_name": "emp3_last_name", "nickname": null, "device_password": null, "card_no": null, "department": 1, "position": null, "hire_date": "2019-04-02", "gender": null, "birthday": null, "verify_mode": -1, "emp_type": null, "contact_tel": null,

"office_tel": null,
"mobile": null,
"national": null,
"city": null,
"address": null,
"postcode": null,
"email": null,
"enroll_sn": null,
"ssn": null,
"religion": null,
"enable_att": true,
"enable_overtime": false,
"enable_holiday": true,
"dev_privilege": 1,
"self_password": "pbkdf2_sha256$36000$XBVRNMOywdNI$P4W7MIZVa3Ho2VBdU2SewS/pb8GavBYSGBXM/bgL+N0=",
"flow_role": [],
"area": [
1
],
"app_status": 0,
"app_role": 1
}

5.3 Create Employee API

HTTP Method	POST
URI	/personnel/api/employees/
Data Type	application/json
Response Type	JSON
Request Parameter	Reference: http://serverIP:serverPort/api/personnel_docs/#employees-create

ResponseJSON Format	**Request Address:** http://192.168.218.8:8090/personnel/api/employees/ **Request Body:** { "emp_code": "employee333", "first_name": "emp3_first_name", "last_name": "emp3_last_name", "area": [1], "department": 1 } **Response Data:** { "id": 6, "emp_code": "employee333", "first_name": "emp3_first_name", "last_name": "emp3_last_name", "nickname": null, "device_password": null, "card_no": null, "department": { "id": 1, "dept_code": "1", "dept_name": "Department" }, "dept_name": "Department", "position": null, "position_name": null, "hire_date": "2019-04-02", "gender": null, "birthday": null, "verify_mode": -1,

```
        "emp_type": null,
        "contact_tel": null,
        "office_tel": null,
        "mobile": null,
        "national": null,
        "city": null,
        "address": null,
        "postcode": null,
        "email": null,
        "enroll_sn": null,
        "ssn": null,
        "religion": null,
        "enable_att": true,
        "enable_overtime": false,
        "enable_holiday": true,
        "dev_privilege": 0,
        "self_password":
"pbkdf2_sha256$36000$XBVRNMOywdNI$P4W7MIZVa3Ho2VBdU2SewS/pb8
GavBYSGBXM/bgL+N0=",
        "flow_role": [],
        "area": [
            {
                "id": 1,
                "area_code": "1",
                "area_name": "Not Authorized"
            }
        ],
        "area_name": "Not Authorized",
        "app_status": 0,
        "app_role": 1
}
```

5.4 Update Employee API

HTTP Method	PATCH
URI	/personnel/api/employees/ <id>/
Data Type	application/json
Response Type	JSON
Request Parameter	Reference: http://serverIP:serverPort/api/personnel_docs/#employees-update
Response JSON Format	**Request Address:** http://192.168.218.8:8090/personnel/api/employees/6/ **Resquest Body:** { "first_name": "emp3_first_name_update", "last_name": "emp3_last_name_update", } **Response Data:** { "id": 6, "emp_code": "employee333", "first_name": "emp3_first_name_update", "last_name": "emp3_last_name_update", "nickname": null, "device_password": null, "card_no": null, "department": 1, "position": null, "hire_date": "2019-04-02", "gender": null, "birthday": null, "verify_mode": -1, "emp_type": null,

"contact_tel": null,
"office_tel": null,
"mobile": null,
"national": null,
"city": null,
"address": null,
"postcode": null,
"email": null,
"enroll_sn": null,
"ssn": null,
"religion": null,
"enable_att": true,
"enable_overtime": false,
"enable_holiday": true,
"dev_privilege": 1,
"self_password": "pbkdf2_sha256$36000$XBVRNMOywdNI$P4W7MIZVa3Ho2VBdU2SewS/pb8GavBYSGBXM/bgL+N0=",
"flow_role": [],
"area": [
1
],
"app_status": 0,
"app_role": 1
}
}

5.5 Delete Employee API

HTTP Method	DELETE
URI	/personnel/api/employees/<id>/
Data Type	application/json

Response Type	JSON
Request Address	http://127.0.0.1:81/personnel/api/employees/6/

5.6 Lookup By Code Employee API

HTTP Method	Lookup by code	
URI	/personnel/api/employees/{emp_code}/?lookup=code	
Data Type	application/json	
Authorization	"JWT ey.....oQi98"	
Parameter	**Description**	
Lookup	Set to "code". The value in the URL is read as emp_code, and related records in the body are given as codes.	
company_code	Optional. Selects the company when the same code exists in more than one company. ?company=<id> works too.	
Request Body	POST /personnel/api/employees/?lookup=code -- with the parameter, the related fields are codes: { "emp_code": "1001", "first_name": "John", "department": "DEP01", "position": "POS01", "area": ["A01"] }	
	POST /personnel/api/employees/ -- without it, unchanged, the same fields are ids: { "emp_code": "1001", "first_name": "John", "department": 1, "position": 1, "area": [1] }	
Field	**With ?l ookup=code**	**Default**
Department	"DEP01" (dept_code)	1 (id)
Position	"POS01" (position_code)	1 (id)
Area	["A01"] (area_code)	[1] (id)
Company	"HQ" (company_code)	1 (id)

6. Resign API

6.1 Get Resign Personnel List API

Method	GET
URI	/personnel/api/resigns/
Headers	Content-Type: application/json Authorization: "JWT ey.....oQi98"

Query Parameters	
Parameter	page
	page_size
	employee
	resign_type
	resign_date
Response JSON Format	{ "count": 5, "next": null, "previous": null, "msg": "", "code": 0, "data": [{ "id": 5, "resign_date": "2020-06-04", "resign_type": 1, "disableatt": true, "employee": { "id": 3, "emp_code": "11111122", "first_name": "aaabb", "last_name": "" }, "first_name": "aaabb", "last_name": "" }, ...] }

6.2 Get Resign Personnel Request API

Method	GET
URI	/personnel/api/resigns/{id}/

Headers	Content-Type: application/json Authorization: "JWT ey.....oQi98"

Path Parameters	
Parameter: id **Description:** required	
Url	/personnel/api/resigns/5/
Response JSON Format	{ "id": 5, "resign_date": "2020-06-04", "resign_type": 1, "disableatt": true, "employee": { "id": 3, "emp_code": "11111122", "first_name": "aaabb", "last_name": "" }, "first_name": "aaabb", "last_name": "" }

6.3 Create Resign Personnel API

Method	POST
Url	/personnel/api/resigns/
Headers	Content-Type: application/json Authorization: "JWT ey.....oQi98"
Request Body JSON Format	{ "employee": 3, "disableatt": true, "resign_type": 1, "resign_date": "2020-06-01", "reason": "" }

Parameter	Required	Type	Description
resign_type	Y	Integer	
disableatt	Y	Bool	

disableatt	Y	String	format: yyyy-mm-dd
Employee	Y	Integer	
reason	N	String	

Response JSON Format	{ "id": 5, "resign_date": "2020-06-01", "resign_type": 1, "disableatt": true, "employee": { "id": 3, "emp_code": "11111122", "first_name": "aaabb", "last_name": "" }, "first_name": "aaabb", "last_name": "" }

6.4 Update Resign Personnel API

Method	PUT
Url	/personnel/api/resigns/{id}/
Headers	Content-Type: application/json Authorization: "JWT ey.....oQi98"
Path Parameter	**Parameter:** id **Description:** required
Request Body JSON Format	{ **"resign_date": "2020-06-02"** }

Parameter	Required	Type	Description
resign_type	N	Integer	
disableatt	N	Bool	

disableatt	N	String	format: yyyy-mm-dd
reason	N	String	

Url	/personnel/api/resigns/5/
Response JSON Format	{ "id": 5, "resign_date": "2020-06-02", "resign_type": 1, "disableatt": true, "employee": { "id": 3, "emp_code": "11111122", "first_name": "aaabb", "last_name": "" }, "first_name": "aaabb", "last_name": "" }

6.5 Delete Resign Personnel API

Method	DELETE
Url	/personnel/api/resigns/{id}/
Headers	Content-Type: application/json Authorization: "JWT ey.....oQi98"
Path Parameter	**Parameter:** id **Description:** required
Response	**None**

6.6 Reinstatement Resign Personnel API

Method	POST
Url	/personnel/api/resigns/reinstatement/

Headers	Content-Type: application/json Authorization: "JWT ey.....oQi98"
Request Body JSON Format	{ "resigns": [1] }

Parameter	Required	Type	Description
Resigns	Y	List	resign id list example: [1, 2, 3, ...]

7. Department API

7.1 Get Department List API

HTTP Method	GET
URI	/personnel/api/departments/
Data Type	application/json
Response Type	JSON
Request Address	http://serverIP:serverPort/personnel/api/departments/?dept_code=**&page=**&dept_code=**&dept_name=**&parent_dept=** page, limit, dept_code, dept_name, parent_dept are optional filter fields.
Request address	http://192.168.218.8:8090/personnel/api/departments/?dept_code=1
Response JSON Format	{ "count": 1, "next": null, "previous": null, "msg": "", "code": 0, "data": [{ "id": 1, "dept_code": "1", "dept_name": "Department", "parent_dept": null, "parent_dept_name": null }] }

7.2 Get Department Object Info API

HTTP Method	GET
URI	/personnel/api/departments/<id>/
Data Type	application/json
Response Type	JSON
Response JSON Format	**Request Address:** http://192.168.218.8:8090/personnel/api/departments/1/ **Request Body:** { "id": 1, "dept_code": "1", "dept_name": "Department", "parent_dept": null, "parent_dept_name": null }

7.3 Create Department API

HTTP Method	POST
URI	/personnel/api/departments/
Data Type	application/json
Response Type	JSON
Request Parameter	Reference: http://serverIP:serverPort/api/personnel_docs/#departments-create
Response JSON Format	**Request Address** http://192.168.218.8:8090/personnel/api/departments/ **Request Body** { "dept_code": "222", "dept_name": "Department222", "parent_dept": 1 }

	Response Data { "id": 2, "dept_code": "222", "dept_name": "Department222", "parent_dept": 1 }

7.4 Update Department API

HTTP Method	PATCH
URI	/personnel/api/departments/ <id>/
Data Type	application/json
Response Type	JSON
Request Parameter	Reference: http://serverIP:serverPort/api/personnel_docs/#departments-update
Response JSON Format	**Request Address** http://192.168.218.8:8090/personnel/api/departments/2/ **Resquest Body** { "dept_name": "Department222_update" } **Response Data** { "id": 2, "dept_code": "222", "dept_name": "Department222_update", "parent_dept": 1 } }

7.5 Delete Department API

HTTP Method	DELETE
URI	/personnel/api/departments/<id>/

Data Type	application/json
Response Type	JSON
Response JSON Format	**Request Address:** http://19.2168.218.8:8090/personnel/api/departments/2/ **Resquest Body:** {}

7.6 Lookup By Code Department API

HTTP Method	Lookup by code
URI	/personnel/api/departments/{dept_code}/?lookup=code
Data Type	application/json
Authorization	"JWT ey.....oQi98"
Parameter	**Description**
Lookup	Set to "code". The value in the URL is read as dept_code, and related records in the body are given as codes.
company_code	Optional. Selects the company when the same code exists in more than one company. ?company=<id> works too.
Request Body	POST /personnel/api/departments/?lookup=code -- with the parameter, the related fields are codes: { "dept_code": "DEP02", "dept_name": "Sales", "parent_dept": "DEP01" }
	POST /personnel/api/departments/ -- without it, unchanged, the same fields are ids: { "dept_code": "DEP02", "dept_name": "Sales", "parent_dept": 1 }

Field	With ?l ookup=code	Default
parent_dept	"DEP01" (dept_code)	1 (id)

8. Area API

8.1 Get Area ListAPI

HTTP Method	GET
URI	/personnel/api/areas/
Data Type	application/json
Response Type	JSON
Request Address	http://serverIP:serverPort//personnel/api/areas/?area_code=**&page=**&area_code=**&area_name=**&parent_area=** page, limit, area_code, area_name, parent_area are optional filter fields.
Response JSON Format	**Request address:** http://192.168.218.8:8090/personnel/api/areas/?area_code=2/ **Response JSON format:** { "id": 2, "area_code": "2", "area_name": "Primero", "parent_area": { "id": 1, "area_code": "1", "area_name": "Not Authorized", "parent_area": null }, "parent_area_name": "Not Authorized" }

8.2 Get Area Object Info API

HTTP Method	GET
URI	/personnel/api/areas/<id>/
Data Type	application/json
Response Type	JSON
Response JSON Format	**Request address:** http://192.168.218.8:8090/personnel/api/areas/2/ **Response JSON format:** { "id": 2, "area_code": "2", "area_name": "Primero", "parent_area": { "id": 1, "area_code": "1", "area_name": "Not Authorized", "parent_area": null }, "parent_area_name": "Not Authorized" }

8.3 Create Area API

HTTP Method	POST
URI	/personnel/api/areas/
Data Type	application/json
Response Type	JSON
Request Parameter	Reference: http://serverIP:serverPort/api/personnel_docs/#areas-create
Response JSON Format	**Request Address** http://192.168.218.8:8090/personnel/api/areas/ **Request Body** { "area_code": "222",

	"area_name": "Department222", "parent_area": 1 } **Response Data** { "id": 2, "area_code": "222", "area_name": "Department222", "parent_area": 1 }

8.4 Update Area API

HTTP Method	PATCH
URI	/personnel/api/areas/ <id>/
Data Type	application/json
Response Type	JSON
Request Parameter	Reference: http://serverIP:serverPort/api/personnel_docs/#areas-update
Response JSON Format	**Request Address** http://192.168.218.8:8090/personnel/api/areas/2/ **Resquest Body** { "area_name": "Area222_update" } **Response Data** { "id": 2, "area_code": "222", "area_name": "area222_update", "parent_area": 1 } }

8.5 Delete Area API

HTTP Method	DELETE
URI	/personnel/api/areas/<id>/
Data Type	application/json
Response Type	JSON
Response JSON Format	**Request Address:** http://19.2168.218.8:8090/personnel/api/areas/2/ **Resquest Body:** {}

8.6 Lookup By Code Area API

HTTP Method	Lookup by code
URI	/personnel/api/areas/{area_code}/?lookup=code
Data Type	application/json
Authorization	"JWT ey.....oQi98"
Parameter	**Description**
lookup	Set to "code". The value in the URL is read as area_code, and related records in the body are given as codes.
company_code	Optional. Selects the company when the same code exists in more than one company. ?company=<id> works too.
Request Body	POST /personnel/api/areas/?lookup=code -- with the parameter, the related fields are codes: { "area_code": "A02", "area_name": "Floor 2", "parent_area": "A01" }
	POST /personnel/api/areas/ -- without it, unchanged, the same fields are ids: { "area_code": "A02",

	"area_name": "Floor 2", "parent_area": 1 }

Field	With ?l ookup=code	Default
parent_area	"A01" (area_code)	1 (id)

9. Position API

9.1 Get Position List API

HTTP Method	GET
URI	/personnel/api/positions/
Data Type	application/json
Response Type	JSON
Request Address	http://serverIP:serverPort/personnel/api/positions/?position_code=**&page=**&position_code=**&position_name=**&parent_position=** page, limit, position_code, position_name, parent_position are optional filter fields.
Response JSON Format	**Request address:** http://192.168.218.8:8090/personnel/api/positions/?position_code=1 **Response JSON format:** { "count": 1, "next": null, "previous": null, "msg": "", "code": 0, "data": [

	{ "id": 1, "position_code": "1", "position_name": "Department", "parent_position": null, "parent_position_name": null }] }

9.2 Get Position Object Info API

HTTP Method	GET
URI	/personnel/api/positions/<id>/
Data Type	application/json
Response Type	JSON
Response JSON Format	**Request Address:** http://192.168.218.8:8090/personnel/api/positions/1/ **Request Body:** { "id": 1, "position_code": "1", "position_name": "Position", "parent_position": null, "parent_position_name": null }

9.3 Create Position API

HTTP Method	POST
URI	/personnel/api/positions/
Data Type	application/json
Response Type	JSON
Request Parameter	Reference: http://serverIP:serverPort/api/personnel_docs/#positions-create

Response JSON Format	**Request Address** http://192.168.218.8:8090/personnel/api/positions/ **Request Body** { "position_code": "222", "position_name": "Position222", "parent_position": 1 } **Response Data** { "id": 2, "position_code": "222", "position_name": "Position222", "parent_position": 1 }

9.4 Update Position API

HTTP Method	PATCH
URI	/personnel/api/positions/ <id>/
Data Type	application/json
Response Type	JSON
Request Parameter	Reference: http://serverIP:serverPort/api/personnel_docs/#positions-update
Response JSON Format	**Request Address** http://192.168.218.8:8090/personnel/api/positions/2/ **Resquest Body** { "position_name": "Position222_update" } **Response Data** { "id": 2, "position_code": "222", "position_name": "Position222_update", "parent_position": 1 } }

9.5 Delete Position API

HTTP Method	DELETE
URI	/personnel/api/positions/<id>/
Data Type	application/json
Response Type	JSON
Response JSON Format	**Request Address:** http://19.2168.218.8:8090/personnel/api/positions/2/ **Resquest Body:** {}

9.6 Lookup By Code Position API

HTTP Method	Lookup by code	
URI	/personnel/api/positions/{position_code}/?lookup=code	
Data Type	application/json	
Authorization	"JWT ey.....oQi98"	
Parameter	**Description**	
Lookup	Set to "code". The value in the URL is read as position_code, and related records in the body are given as codes.	
company_code	Optional. Selects the company when the same code exists in more than one company. ?company=<id> works too.	
Request Body	POST /personnel/api/positions/?lookup=code -- with the parameter, the related fields are codes: { "position_code": "POS02", "position_name": "Team Lead", "parent_position": "POS01" }	
	POST /personnel/api/positions/ -- without it, unchanged, the same fields are ids: { "position_code": "POS02", "position_name": "Team Lead", "parent_position": 1 }	
Field	**With ?l ookup=code**	**Default**
parent_position	"POS01" (position_code)	1 (id)

10. Transaction API

10.1 GetTransaction List API

HTTP Method	GET
URI	/iclock/api/transactions/
Data Type	application/json
Response Type	JSON
Request Address	http://serverIP:serverPort/iclock/api/transactions/?emp_code=**&start_time=**&end_time=** page , page_size, emp_code, terminal_sn, start_time, end_time are optional filter fields.
Response JSON Format	**Request Address:** http://192.168.218.8:8090/iclock/api/transactions/?emp_code=100001&start_time=2019-03-01 00:00:00&end_time=2019-04-1 00:00:00 **Response JSON format:** { "count": 7, "next": null, "previous": null, "msg": "", "code": 0, "data": [{ "id": 1, "emp_code": "100001", "punch_time": "2019-03-04 09:50:00", "punch_state": "0", "verify_type": 1, "work_code": null, "terminal_sn": "", "terminal_alias": null, "area_alias": null, "longitude": null, "latitude": null, "gps_location": "", "mobile": null, "source": 0,

```
                "purpose": 1,
                "crc": null,
                "is_attendance": 1,
                "reserved": null,
                "upload_time": "2019-03-04 09:50:00",
                "sync_status": 1,
                "sync_time": null,
                "is_mask": 1,
                "temperature":"35.0",
                "emp": null,
                "terminal": null
            },
        ...
        ...
        ...
    ]
```


10.2 First & Last Punch Report API

HTTP Method	GET
URL	/att/api/firstLastReport/
Headers	
Content-Type	application/json
Authorization	"JWT ey.....oQi98"
Query Parameters	
Parameter	**Description**
page	Page number
page_size	Page size
start_date	Start date (YYYY-MM-DD)
end_date	End date (YYYY-MM-DD)
employees	Employee ID list
departments	Department ID list
areas	Area ID list
groups	Group ID list
Response	

```
{
  "count": 1,
  "next": null,
  "previous": null,
  "msg": "Success",
  "code": 0,
  "data": [
    {
      "emp_code": "1",
      "first_name": "it",
      "last_name": null,
      "nick_name": "",
      "gender": "Male",
      "dept_code": "27",
      "dept_name": "HRM",
      "position_code": null,
      "company_code": "1",
      "company_name": "Company",
      "position_name": null,
      "att_date": "2026-04-01",
      "weekday": "Wednesday",
      "first_punch": "08:00 AM",
      "last_punch": "05:00 PM",
      "total_time": "09:00"
    }
  ]
}
```


10.3 First In Last Out Report API

HTTP Method	GET
URL	/att/api/firstInLastOutReport/
Headers	
Content-Type	application/json
Authorization	"JWT ey.....oQi98"
Query Parameters	
Parameter	**Description**
page	Page number
page_size	Page size
start_date	Start date (YYYY-MM-DD HH:MM:SS)
end_date	End date (YYYY-MM-DD HH:MM:SS)
employees	Employee ID list
departments	Department ID list
areas	Area ID list
groups	Group ID list
Response	

```
{
    "count": 1,
    "next": null,
    "previous": null,
    "msg": "Success",
    "code": 0,
    "data": [
        {
            "emp_code": "1",
            "first_name": "it",
            "last_name": null,
            "nick_name": "",
            "gender": "Male",
            "dept_code": "27",
            "dept_name": "HRM",
            "position_code": null,
            "company_code": "1",
            "company_name": "Company",
            "position_name": null,
            "att_date": "2026-04-01",
            "weekday": "Wednesday",
            "check_in": "08:00 AM",
            "check_out": "04:37 PM",
            "total_time": "08:37"
        }
    ]
}
```

For any clarifications regarding the API User Manual, please contact us through e-mail at zk_me@zkteco.com.

ZKTeco Middle East

Office 502, Bay Square Building 1, Al Asayel St., Business Bay, Dubai, U.A.E
Tel: +971 4 3927649
Fax: +971 4 3792752
E-mail: zk_me@zkteco.com
www.zkteco.me