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360iQ Data API - Business Documentation

Introduction

The following article along with its subpages covers information about 360iQDataAPI which allow external parties to send information about locations, transactions, cash operations, and employee events

Documentation consists of:

- The user manual which describes the sequence of operations needed to properly send data by the external party
- Endpoints and data structures description used to receive different types of data

Subpages

- 360iQ Data API Environments and Repository
- 360iQ Data API Integration Manual
- 360iQ Data API UML Sequence Diagrams
- 360iQ Data API Available Endpoints
- 360iQ Data API Integration development process
- 360iQ Data API Postman Collection and JSON Examples



360iQ Data API - Integration Manual

Introduction

360iQDataAPI is an Application Programming Interface based on Open API Framework | Restaurant Technology, Network adjusted for 360iQ system purposes. It offers uploading of transaction data regarding orders, drawer operations, and employee events with the purpose of creating reports out of sent information.

Getting Started

Registering Locations

The location to which data is going to be uploaded has to already exist in the 360iQ system.

Getting Authorization Credentials

The credential set is created in a separate External Client Account Management System. The system allows the creation of an External Client Account by providing the User identification and recipients (external party) email address. As a result invitation email with a generated ClientID and password reset link is sent to the given address.

The recipient is supposed to finish the registration process, to have following items: User Login, ClientID and Password.

Those values are used then during creation tokens for making requests to 360iODataAPI.

Getting authentication token

The authentication token is created using separate 360iQldentity endpoints using the client credentials received as a result of the External Client Account creation process.

The received token has to be used during making requests with data upload.

Uploading External Locations Information

Before sending transaction data, location information needs to be uploaded, to allow proper assignment of location from the external party with an already existing location in the 360iQ system.



1 This is a mandatory step to give certainty that each transaction received from the external company is assigned to the proper location and only users that have access to this location have also access to uploaded data.

The final step before using 360iQDataAPI to send transaction data is to upload information about location/s.

Locations Upload Endpoint

On how to do that refer to the article below

· 360iQDataAPI - Locations Endpoint



Mhen location information is uploaded it has to be connected with an already existing location in the 360iQ system. It is a part of the site configuration process.

Uploading Transactional Data

Transactions can be uploaded and processed when valid token is used and location data is assigned to 360iQ location.

Transactional Data

360iQDataAPI supports uploading of Transactions, Refund Transactions, Cash Operations and Employee Events.

Available Endpoint	Uploaded Information Description
Transactions	Detailed information about Sale, Void and Cancel transactions, including information about products, modifiers, discounts, promotions, loyalty and payments. Each request sent is single transaction
Refund Transaction	Detailed information about Refund transactions, including information about products, modifiers, discounts, promotions, loyalty, payments as well as refund specific information such as refund reasons. Each request sent is single transaction
Cash Operations	Information about single drawer operation executed on cash register device
Employee Events	Information about employee specific events occurring during employee's shift. A single employee event or pair of events can be sent

To learn more about available endpoints click one of the links below

- 360iQDataAPI Transactions
- 360iQDataAPI Refund Transactions
- 360iQDataAPI Cash Operations
- 360iQDataAPI Employee Events

360iQ Data API - Available Endpoints

Introduction

This article covers all available endpoints on 360iQDataAPI

- Introduction
- Subpages
- Endpoints
 - HTTP Status Codes
 - o Endpoint Location
 - Example Request
 - Example Response
 - Endpoint Transaction
 - Example Request
 - Example Response
 - Endpoint Refund Transaction
 - Example Request
 - Example Response
 - Endpoint Cash Operation
 - Example Request
 - Example Response
 - · Endpoint Employee Event
 - Example Request
 - Example Response

Subpages

- 360iQ Data API Location Model
- 360iQ Data API Event Node
- 360iQ Data API Transaction Model
- 360iQ Data API Refund Transaction Model
- 360iQ Data API Cash Operation Model
- 360iQ Data API Employee Event Model

Endpoints

HTTP Status Codes

List of HTTP status codes used by 360iQDataAPI

HTTP Status Code	Description
200 Ok	Request successful (only for location requests, it means that location/locations were correctly persisted)
202 Accepted	Request successful and accepted for further processing. (versions below 1.1 will return 200 Ok instead)
400 Bad Request	Incorrect parameter, response should indicate source of a problem (e.g. returned when provided value for LocationID would not be correctly validated as a reference of an existing location)



















401 Unauthorized	Invalid or expired authentication token provided. Token should be refreshed or new one requested
403 Forbidden	Returned when external-party-id is not included in request header
422 Unprocessable Entity	Invalid input request. Some validation errors occurred (e.g. incorrect json format or missing requaried fields)
500 Internal Server Error	API is not responding

Endpoint - Location

Link	<base_url>/v1/locations</base_url>	
Туре	POST	
Header Parameters	Authorization: Bearer {authenticationToken}	
	External-Party-ID: {externalPartyID}	
Body	Location Model	
Response	HTTP Status Code	

Example Request

```
▼ Request

   1 curl -X 'POST' \
         'http://localhost:5079/v1/Locations'
   3
         -H 'accept: */*' \
        -H 'Content-Type: application/json'
   4
        -d '{
   5
   6
           "Locations": [
   7
              {
                   "LocationID": "1001",
   8
                   "URI": "https://www.exampleuri.com/location1001/informationpage",
   9
                   "Address": {
  10
                       "StreetAddress": "5th Avenue St.",
  11
                       "CityName": "Los Santos",
  12
                       "PostalCode": "10123",
  13
  14
                       "Country": "United States",
                       "CountryCode": "US",
  15
                       "StateOrTerritory": "CA"
  16
  17
                  },
                   "Position": {
  18
  19
                       "Latitude": "34.038579",
                       "Longitude": "-118.274294"
  20
  21
  22
                   "Description": "Cluckin Bell - Los Santos"
  23
  24
   25
```

Example Response

```
Response

1  Server response
2  Code  Details
3  200  Success
4  Response headers
5  api-supported-versions: 1.0
6  content-length: 0
7  date: Fri,09 Jun 2023 08:39:34 GMT
8  server: Kestrel
```

Endpoint - Transaction

There is also a batch endpoint <base_url>/v1/transactions/batch which accepts object containing transactions array of Transaction Event Model.

All transactions contained in a single batch MUST originate from the same store

Link	<base_url>/v1/transactions</base_url>
Туре	POST
Header Parameters	Authorization: Bearer {authenticationToken}
	External-Party-ID: {externalPartyID}
Body	Transaction Event Model
Response	HTTP Status Code

Example Request

```
    Request

    1 curl -X 'POST' \
         'http://localhost:5079/v1/Transactions' \
    3
         -H 'accept: */*' \
         -H 'Content-Type: application/json' \
    4
          -d '{
    5
           "Event": {
                "TransactionGUID": "66363c1e-4f8a-4f71-bbb2-0a1d7e49ab9a",
    8
                "TransactionDateTimeStamp": "2023-06-02T15:30:15",
                "TransactionType": "New",
    9
                "BusinessDate": "20230602",
   10
                "BrandID": "36",
   11
                "BrandName": "Example Donuts",
   12
   13
                "Location": {
               "LocationID": "1001",
"Description": "Example Donuts - Los Angeles"
   14
   15
   16
   17
                "TransactionDevice": {
   18
                    "DeviceID": "12",
                    "DeviceDescription": "Register #1 Front House"
   19
   20
   21
                "Employee": {
   22
                    "EmployeeID": "12345",
```

```
"EmployeeFullName": "John Doe"
24
            },
25
            "EventTypeOrder": {
26
                "Order": {
27
                    "OrderID": "6a1accb4-7175-463c-80b1-51e362f85bf5",
                    "OrderNumber": 1337,
                    "OrderTime": "2023-06-06T13:01:33",
29
30
                    "OrderItem": [
31
                        {
                             "SeatNumber": "1",
32
33
                             "TableNumber": "1",
34
                             "OrderItemState": [
35
                                 {
36
                                     "ItemState": {
                                         "value": "Added"
37
38
                                     },
                                     "Timestamp": "2023-06-06T13:05:45
39
40
                                 }
41
                             ],
                             "MenuProduct": {
42
                                 "menuProductID": "12345",
43
                                 "name": "Ultra Whooper 7000",
                                 "size": "Large",
45
                                 "MasterDescription": "Super whooper with double cheese and extra pickles",
46
47
                                 "MenuItem": [
48
                                     {
49
                                         "ItemType": "Sale"
                                         "Category": "Main Meals",
50
                                         "iD": "12345",
51
                                         "Description": "Super whooper with double cheese and extra pickles",
52
53
                                         "Pricing": [
54
                                                   Tax": [
55
56
57
                                                          "amount": 1.20,
                                                          "Description": "State Tax"
58
59
                                                      }
60
                                                 ],
61
                                                  "ItemPrice": 15.99
62
                                             }
                                         ],
                                          "SKU": {
64
65
                                              "productName": "ULTRA WHOOPER #1",
66
                                             "productCode": "78411"
67
68
                                     }
69
                                 ],
70
                                 "SKU": {
                                     "productName": "ULTRA WHOOPER #1",
71
                                     "productCode": "78411"
72
73
74
75
                        }
76
                    ],
                    "Total": {
77
78
                         "Tax": [
79
                             {
                                 "amount": 1.20,
80
```

```
"Description": "State Tax"
 82
                             }
 83
                         ],
                          "ItemPrice": 15.99
 84
 85
                     },
                     "OrderState": "Closed",
                     "OrderSource": "In house",
 87
 88
                     "Payment": [
 89
                         {
                              "Timestamp": "2023-06-06T13:06:18",
 90
 91
                              "Status": "Accepted",
 92
                              "Amount": 20.00,
                              "Change": 4.01,
 93
                              "TenderType": {
                                  "value": "Cash"
 95
 96
 97
 98
                     ]
                 }
100
101
         }
102 }'
```

Example Response

```
Presponse

1 Server Response
2 Code Details
3 202 Accepted
4 Response headers
5 api-supported-versions: 1.0
6 content-length: 0
7 date: Fri,09 Jun 2023 08:43:12 GMT
8 server: Kestrel
```

Endpoint - Refund Transaction

There is also a batch endpoint <base_url>/v1/refunds/batch which accepts object containing refunds array of Refund
Transaction Event Model

All refund transactions contained in a single batch MUST originate from the same store

Link	<base_url>/v1/refunds</base_url>
Туре	POST
Header Parameters	Authorization: Bearer {authenticationToken} External-Party-ID: {externalPartyID}
Body	Refund Transaction Event Model
Response	HTTP Status Code

Example Request

```
▼ Request

    1 curl -X 'POST' \
          'http://localhost:5079/v1/Refunds' \
         -H 'accept: */*' \
    3
    4
         -H 'Content-Type: application/json' \
          -d '{
    5
    6
          "Event": {
            "TransactionGUID": "60386258-737c-46f8-a118-a8e454512f5d",
            "TransactionDateTimeStamp": "2023-08-29T13:20:30",
    8
    9
            "TransactionType": "New",
   10
            "BusinessDate": "20230829",
            "BrandID": "99997023",
   11
   12
            "BrandName": "Cluckin Bell",
   13
            "Location": {
              "LocationID": "99999999",
   14
   15
              "Description": "E2E_TEST_STORE"
   16
   17
            "TransactionDevice": {
   18
              "DeviceID": "12",
              "DeviceDescription": "Register #1 Front House"
   19
   20
           },
            "Employee": {
   21
              "EmployeeID": "12345",
   22
   23
              "EmployeeFullName": "John Doe"
   24
   25
            "EventTypeRefund": {
   26
             "Refund": {
                "RefundTotal": 18.80,
   27
   28
                "RefundReason": "Dissatisfier Customer",
                "RefundReasonDescription": "Customer didn't like his meal",
   29
                "RefundTransactionType": {
   30
   31
                  "Order": {
                    "OrderID": "434512312",
   32
                    "OrderNumber": 8769,
   33
                    "OrderTime": "2023-08-29T13:15:30",
   34
   35
                    "OrderItem": [
   36
                      {
                        "OrderItemState": [
   37
   38
                          {
   39
                            "ItemState": {
                              "value": "Added"
   40
   41
                              Timestamp": "2023-08-29T13:16:12"
   43
   44
   45
                         "MenuProduct": {
                          "menuProductID": "1",
   46
   47
                          "name": "Burger Fabulous",
                          "MenuItem": [
   48
   49
   50
                              "ItemType": "Sale",
   51
                              "Category": "Burgers",
   52
                              "iD": "1",
                              "Description": "Burger with cheese, tomato and sauce",
   53
   54
                              "Pricing": [
   55
                                {
```

```
56
                               "Tax": [
 57
                                 {
 58
                                   "amount": 1.00,
                                   "Description": "State Tax"
 59
 60
                                 }
 61
                               ],
                               "ItemPrice": 10.00,
 62
 63
                               "Quantity": 1
 65
                           ],
                           "SKU": {
 66
 67
                             "productName": "Burger #1",
                             "productCode": "1234"
 68
                           }
 70
                         }
 71
                       ],
                       "SKU": {
 72
                         "productName": "Burger #1",
 73
 74
                         "productCode": "1234"
 75
 76
                     }
 77
                   },
 78
                   {
                     "OrderItemState": [
 79
                       {
                         "ItemState": {
 81
 82
                          "value": "Added"
 83
                         "Timestamp": "2023-08-29T13:17:21"
 84
                       }
 86
                     ],
                     "MenuProduct": {
 87
                       "menuProductID": "2",
                       "name": "Fabulous Fries",
 89
 90
                       "MenuItem": [
                           "ItemType": "Voided",
                         {
 91
 92
                           "Category": "Fries",
                           "iD": "2",
 94
                           "Description": "French fries served with mayo",
 95
                           "Pricing": [
97
                               "Тах": [
 98
99
100
                                   "amount": 0.50,
101
                                   "Description": "State Tax"
102
103
                               ],
                               "ItemPrice": 5.00,
104
                               "Quantity": 1
105
106
                             }
107
                           "SKU": {
108
109
                             "productName": "French Fries #1",
                             "productCode": "2345"
110
111
                           }
112
                         }
113
                       ],
```

```
114
                        "SKU": {
115
                          "productName": "French Fries #1",
116
                          "productCode": "2345"
117
118
                     }
119
                   }
120
                  ],
121
                  "Total": {
                   "Tax": [
122
123
                      {
                        "amount": 1.80,
124
                        "Description": "State Tax"
125
126
127
                    ],
                    "ItemPrice": 18.00
128
129
                 },
                  "OrderItemCount": 3,
130
                  "OrderState": "Closed",
131
132
                  "Payment": [
133
134
                      "Timestamp": "2023-08-29T13:20:30",
135
                      "Status": "Accepted",
                      "Amount": 20.00,
136
137
                      "Change": 1.20,
138
                      "TenderType": {
                        "value": "Cash"
139
140
141
142
                 ]
143
144
145
146
147
148 }'
```

Example Response

```
Request

1 Server response
2 Code Details
3 202 Accepted
4 Response headers
5 api-supported-versions: 1.0
6 content-length: 0
7 date: Fri,09 Jun 2023 08:45:04 GMT
8 server: Kestrel
```

Endpoint - Cash Operation

There is also a batch endpoint <base_url>/v1/cashoperations/batch which accepts object containing cashOperations array of Cash Operation Event Model.

All cash operations contained in a single batch MUST originate from the same store

Link	<base_url>/v1/cashOperations</base_url>	
Туре	POST	
Header Parameters	Authorization: Bearer {authenticationToken} External-Party-ID: {externalPartyID}	
Body	Cash Operation Event Model	
Response	HTTP Status Code	

Example Request



```
1 curl -X 'POST' \
2
      'http://localhost:5079/v1/CashOperations' \
3
      -H 'accept: */*' \
4
      -H 'Content-Type: application/json' \
5
      -d '{
        "Event": {
6
7
            "TransactionGUID": "66363c1e-4f8a-4f71-bbb2-0a1d7e49ab9a",
            "TransactionDateTimeStamp": "2023-06-02T15:30:15",
8
9
            "TransactionType": "New",
10
            "BusinessDate": "20230602",
            "BrandID": "36",
11
12
            "BrandName": "Example Donuts",
13
            "Location": {
                "LocationID": "1001",
14
15
                "Description": "Example Donuts - Los Angeles"
16
            },
            "TransactionDevice": {
17
18
                "DeviceID": "12345",
                "DeviceDescription": "Cash Register #1 Front"
19
20
            },
21
            "Employee": {
                "EmployeeID": "1234567890",
22
23
                "EmployeeFullName": "John Doe"
24
25
            "EventTypeDrawer": {
                "Drawer": {
26
27
                    "DrawerEventGUID": "82b5ce00-f84c-4c74-a7a6-14259a820f62",
28
                    "DrawerEventNumber": 8656443,
                    "DrawerOperationType": "CashIn",
29
                    "DrawerOpenTime": "2023-06-05T08:23:17",
30
31
                    "DrawerCloseTime": "2023-06-05T08:23:36",
                    "DrawerTransactionReason": "Payment input",
32
                    "ReasonDescription": "Drawer opened to input customer payment during transaction",
33
                    "ReferencedTransactionGUID": "e590c6bd-a018-4ace-b874-e1106b5285c0",
34
35
                    "CashManagement": [
36
                        {
                            "Amount": 100.00
37
38
39
40
41
42
43 }'
```

Example Response

```
Presponse

1 Server Response
2 Code Details
3 202 Accepted
4 Response headers
5 api-supported-versions: 1.0
6 content-length: 0
7 date: Fri,09 Jun 2023 08:45:35 GMT
8 server: Kestrel
```

Endpoint - Employee Event

There is also a batch endpoint <base_url>/v1/employeeevents/batch which accepts object containing employeeEvents array of

Employee Event Model.

All employee events contained in a single batch MUST originate from the same store

Link	<base_url>/v1/employeeEvents</base_url>
Туре	POST
Header Parameters	Authorization: Bearer {authenticationToken}
	External-Party-ID: {externalPartyID}
Body	Employee Event Model
Response	HTTP Status Code

Example Request

```
▼ Request

   1 curl -X 'POST' \
         'http://localhost:5079/v1/EmployeeEvents' \
   3
         -H 'accept: */*' \
   4
         -H 'Content-Type: application/json' \
        -d '{
   5
   6
           "Event": {
               "TransactionGUID": "66363c1e-4f8a-4f71-bbb2-0a1d7e49ab9a",
   7
               "TransactionDateTimeStamp": "2023-06-02T15:30:15",
   8
               "TransactionType": "New",
   9
  10
               "BusinessDate": "20230602",
               "BrandID": "36",
  11
  12
               "BrandName": "Example Donuts",
               "Location": {
  13
                   "LocationID": "1001"
  14
  15
                   "Description": "Example Donuts - Los Angeles"
  16
               "TransactionDevice"; {
  17
                   "DeviceID": "123",
  18
                   "DeviceDescription": "Cash Register #1 Front"
  19
  20
               },
               "Employee": {
  21
  22
                   "EmployeeID": "1234567890",
                   "EmployeeFullName": "John Doe"
  23
  24
               },
               "EventTypeTimeCard": {
  25
                   "TimeCard": {
  26
                       "Employee": {
  27
                           "EmployeeID": "10101",
  28
                           "EmployeeFullName": "John Doe"
  29
  30
                       },
   31
                       "ClockDataTransaction": [
  32
  33
                               "TimeCardCorrelationGUID": "4a84bc67-cc73-44d8-8b83-6a29fb0591fa",
  34
                               "PunchType": "PunchIn",
                                "ClockDateTime": "2023-06-05T08:00:00",
  35
   36
                               "EmployeeIdentifier": "10101",
```

Example Response

```
Response

1  Server response
2  Code  Details
3  202   Accepted
4  Response headers
5  api-supported-versions: 1.0
6  content-length: 0
7  date: Fri,09 Jun 2023 08:46:02 GMT
8  server: Kestrel
```

360iQ Data API - Location Model

Introduction

This article covers information about model for Location that is used by 360iQDataApi - Location Endpoint as well as JSON examples of that model

Model consists of collection of locations, if only single location is provided it still must be provided inside JSON collection. Model has to be provided in JSON format

- Introduction
- · Location Model
 - Locations
 - Address
 - Position

Location Model

ртіQ - DTiQ model exclusive properties

RTN - RTN model properties

OPTIONAL - properties that client CAN provide. Optional properties can be omitted during construction of request

REQUIRED - properties that client MUST provide. Required string properties MUST HAVE a value, EMPTY STRINGS ARE NOT ALLOWED

NO IMPACT - properties that in current version of API have no impact on final result in DTiQ application

Locations

Model Property	Data Format	Description
LocationID RTN REQUIRED	string character limit set to 50 can only contain numbers, letters, underscores and hyphens	External party location identifier
URI RTN OPTIONAL NO IMPACT	string character limit set to 100	Link to location or location owner website
Address RTN OPTIONAL NO IMPACT		See: Address
Position RTN OPTIONAL NO IMPACT	-	See: Position
Description RTN REQUIRED	string character limit set to 100	Location name

Address

Model Property	Data Format	Description
StreetAddress RTN OPTIONAL NO IMPACT	string character limit set to 100	Name of street where location is situated
CityName RTN OPTIONAL NO IMPACT	string character limit set to 100	Name of city in which location is situated
PostalCode RTN OPTIONAL NO IMPACT	string	Location's postal code

	character limit set to 100	
Country RTN OPTIONAL NO IMPACT	string character limit set to 100	Name of country in which location is situated
CountryCode RTN OPTIONAL NO IMPACT	string character limit set to 100	Country identification code, e.g. us, GB, PL
StateOrTerritory RTN OPTIONAL NO IMPACT	string character limit set to 100	State or territory identifier in which location is situated, e.g. NY, TX

Position

Model Property	Data Format	Description
Latitude RTN OPTIONAL NO IMPACT	string character limit set to 100	Latitude coordinate of location
Longitude RTN OPTIONAL NO IMPACT	string character limit set to 100	Longitude coordinate of location



360iQ Data API - Event Node

Introduction

Event node is used as a basis for each type of entity that can be received by 360iQDataAPI with the exclusion of the location endpoint. This article covers information about Event node.

- Introduction
- API Usage
- · Event Node
 - Event
 - Location
 - Transaction Device
 - Employee
 - Event Type

API Usage

Inside 360iQDataAPI, Event Node is used by:

- Transaction Event Model
- Refund Transaction Event Model
- · Cash Operation Model
- · Employee Event Model

Event Node

Properties mentioned in this section are top level properties of every event

ртіQ - DTiQ model exclusive properties

RTN - RTN model properties

OPTIONAL - properties that client CAN provide. Optional properties can be omitted during construction of request

REQUIRED - properties that client MUST provide. Required string properties MUST HAVE a value, EMPTY STRINGS ARE NOT ALLOWED

NO IMPACT - properties that in current version of API have no impact on final result in DTiQ application

Event

Model Property	Data Format	Description
TransactionGUID RTN REQUIRED	GUID	Operation identifier in GUID format
TransactionDateTimeStamp RTN REQUIRED	datetime	Full date time of operation. UTC time without daylight saving. Format: yyyy-MM-dd'T'HH:mm:ss
TransactionType RTN REQUIRED		Type of operation. Identifies the type of transaction. Accepted values: New - indicates new entry Update - indicates fully updated state of previously sent entry
		⚠ Transaction properties that can't be changed when sending update

		(otherwise new entry will be created instead of an update) • TransactionGUID • TransactionDateTimeStamp • BusinessDate • TransactionDevice • Location • Employee (Employee attendance only) • Order.OrderNumber • Order.OrderState • Drawer.DrawerOperationType • Drawer.DrawerEventNumber • ClockDataTransaction.PunchT ype • ClockDataTransaction.ClockD ateTime • ClockDataTransaction.Create dTimestamp
BusinessDate RTN REQUIRED	string character limit set to 100	Business date of operation in string format Format: yyyyMMdd
BrandID RTN OPTIONAL NO IMPACT	string character limit set to 100	Identifier of location brand
BrandName RTN OPTIONAL NO IMPACT	string character limit set to 100	Name of location brand
Location RTN REQUIRED		Node with information about location. See: Location
TransactionDevice RTN REQUIRED		Node with information about cash register. See: Transaction Device
Employee RTN REQUIRED		Node with information about employee. See: Employee
{EventType} ртір REQUIRED	-	Event identifier. For more information see: Event Type
OrderingNotes OPTIONAL	string? character limit set to 200	Node with optional notes displayed on the receipt.

Location

Model Property	Data Format	Description
LocationID RTN REQUIRED	string character limit set to 50 can only contain numbers, letters, underscores and hyphens	Unique identifier of location, this identifier MUST match LocationID used in Location Model

Description RTN REQUIRED	string	Location name, this name MUST match
	character limit set to 100	Description used in Location Model

Transaction Device

Model Property	Data Format	Description
DeviceID RTN REQUIRED	string character limit set to 100	Unique identifier of device/cash register within location, on which operation was executed
DeviceDescription RTN REQUIRED	string character limit set to 100	Name of device/cash register on which operation was executed

Employee

Model Property	Data Format	Description
EmployeeID RTN REQUIRED	string character limit set to 50	Identification number of employee that initiated operation
EmployeeFullName DTIQ REQUIRED	string character limit set to 100	Name of employee that initiated operation

Event Type

Last object of Event Node will differ in relation to endpoint / operation type that is being used

Event Type	Description
EventTypeOrder	Event type used for Transactions
EventTypeRefund	Event type used for Refund Transactions
EventTypeDrawer	Event type used for Cash Operations
EventTypeTimeCard	Event type used for Employee Events

360iQ Data API - Transaction Model

Introduction

This article covers information about model for Transactions that is used by 360iQDataAPI - Transactions Endpoint

Model have to be provided in JSON format

- Introduction
- Subpages
- Transaction Model
 - EventType
 - EventTypeOrder

Subpages

- 360iQ Data API Transaction Model Order Sub-models
- 360iQ Data API Transaction Model Totals Sub-models

Transaction Model



Transaction Model must begin with Event Node

DTIQ - DTiQ model exclusive properties

RTN - RTN model properties

OPTIONAL - properties that client CAN provide. Optional properties can be omitted during construction of request

REQUIRED - properties that client MUST provide. Required string properties MUST HAVE a value, EMPTY STRINGS ARE NOT ALLOWED

NO IMPACT - properties that in current version of API have no impact on final result in DTiQ application

EventType

Event type for Transactions is EventTypeOrder

EventTypeOrder

Model Property	Data Format	Description
Order RTN DTIQ-SPECIFIC FIELDS REQUIRED	-	See: Order





360iQ Data API - Transaction Model - Order Sub-models

Introduction

This article covers all information regarding any order specific information

Usage examples provided in JSON format can be found here: 360iQDataAPI - Transaction Model

Sub-models

DTIQ - DTiQ model exclusive properties

RTN - RTN model properties

OPTIONAL - properties that client CAN provide. Optional properties can be omitted during construction of request

REQUIRED - properties that client MUST provide. Required string properties MUST HAVE a value, EMPTY STRINGS ARE NOT ALLOWED

NO IMPACT - properties that in current version of API have no impact on final result in DTiQ application

Order

Model Property	Data Format	Description
OrderID RTN OPTIONAL NO IMPACT	string character limit set to 100	Unique identifier of an order
OrderNumber RTN REQUIRED	integer	Check number used in reports
OrderTime RTN REQUIRED	datetime	Date time stamp of when order began. UTC format without daylight saving Format: yyyy-MM-ddTHH:mm:ss
OrderItem RTN REQUIRED	collection of order items	See: Order Item
Total RTN REQUIRED		See: Total
Promotion RTN OPTIONAL NO IMPACT		See: Promotion
ChannelDescription RTN OPTIONAL NO IMPACT	string character limit set to 100	Description of a channel of delivery, e.g. Mobile App, Online App, In-Store
OrderItemCount RTN OPTIONAL NO IMPACT	integer	Number of items included in an order
Party RTN OPTIONAL NO IMPACT	-	See: Party
OrderState RTN REQUIRED	enum	Ending state of an order. Accepted values and mapping: Closed, Other → Sale transaction (Refund when sent to refund endpoint) Abandoned, Voided → Void transaction Canceled → Cancel transaction
OrderSource RTN OPTIONAL NO IMPACT	string character limit set to 100	Description of source of order placement, e.g. Mobile, Online App, In-Store
Payment RTN REQUIRED	collection of payments	See: Payment

OrderItem

Model Property	Data Format	Description
SeatNumber RTN OPTIONAL NO IMPACT	string character limit set to 100	Seat number
TableNumber RTN OPTIONAL NO IMPACT	string character limit set to 100	Table number
OrderItemState RTN REQUIRED	collection of order item states	Describes history of states of an order item. See: Order Item State
MenuProduct RTN REQUIRED	-	See: Menu Product

OrderItemState

Model Property	Data Format	Description
ItemState RTN REQUIRED	-	See: Item State
Timestamp RTN REQUIRED	datetime	Date time stamp of an order item state. UTC format without daylight saving Format: yyyy-MM-ddTHH:mm:ss

ItemState

Model Property	Data Format	Description
value RTN REQUIRED	enum	Indicator of order state. Accepted values: Added, Canceled, Voided, Refunded (supported only in refund transactions endpoint)

MenuProduct

Model Property	Data Format	Description
menuProductID RTN REQUIRED	string character limit set to 100	Menu product identifier
Combo dtiq optional	boolean	When true, flag indicates that MenuProduct is a combo. False by default
name RTN REQUIRED	string character limit set to 100	Menu product name
SIZE RTN OPTIONAL NO IMPACT	string character limit set to 100	Size of a menu product
MasterDescription RTN OPTIONAL NO IMPACT	string character limit set to 100	Description for the menu product, e.g. Combo #1
ChannelDescription RTN OPTIONAL NO IMPACT	string character limit set to 100	Description for the menu product specific to the channel, e.g. Cheeseburger combo

MenuItem RTN REQUIRED	collection of menu items	See: Menu Item
Promotion RTN OPTIONAL NO IMPACT	collection of promotions	See: Promotion
SKU RTN REQUIRED	-	See: SKU

MenuItem

1 In original RTN format Modifier is provided as single JSON object, in 360iqDataAPI Modifier is a collection of modifiers

Model Property	Data Format	Description
ItemType DTIQ REQUIRED	enum	Indicator of final product state. Accepted values: Sale, Voided, Canceled
Category DTIQ REQUIRED	string character limit set to 100	Category of the product
ID RTN REQUIRED	string character limit set to 100	Identifier of menu item
ChannelAvailability RTN OPTIONAL NO IMPACT	string character limit set to 100	Information about channels in which product is available, e.g. Online ordering, In-house only
LocationAvailability RTN OPTIONAL NO IMPACT	string character limit set to 100	List of locations (Location IDs) in which product is available
Description RTN OPTIONAL NO IMPACT	string character limit set to 100	Short description of product
OrderingNotes RTN OPTIONAL NO IMPACT	string character limit set to 200	Comment regarding product, customer special requests
Promotion RTN OPTIONAL NO IMPACT		See: Promotion
Pricing RTN REQUIRED	collection of pricings	MenuItem specific pricings, without including any modifiers. See: Pricing
SKU RTN REQUIRED		See: SKU
Modifier RTN DTIQ - COLLECTION OPTIONAL	collection of modifiers	See: Modifier

Modifier

Model Property	Data Format	Description
iD RTN REQUIRED	string character limit set to 100	Identifier of modifier
ChannelAvailability RTN OPTIONAL NO IMPACT	string character limit set to 100	Information about channels in which product is available, e.g. Online ordering, In-house only
LocationAvailability RTN OPTIONAL NO IMPACT	string character limit set to 100	List of locations (Location IDs) in which product is available

Description RTN OPTIONAL NO IMPACT	string character limit set to 100	Short description of modifier
OrderingNotes RTN OPTIONAL NO IMPACT	string character limit set to 100	Comment regarding modifier, customer special requests
Promotion RTN OPTIONAL NO IMPACT	-	See: Promotion
SKU RTN REQUIRED	-	See: SKU
Pricing RTN REQUIRED	collection of pricings	Modifier specific pricings. See: Pricing

SKU

Model Property	Data Format	Description
productName RTN REQUIRED	string character limit set to 100	Product name
productCode RTN REQUIRED	string character limit set to 50	Unique product identifier

Party

Model Property	Data Format	Description
Customer RTN OPTIONAL NO IMPACT	collection of customers	See: Customer
CustomerID RTN OPTIONAL NO IMPACT	string character limit set to 100	Customer identification number
Description RTN OPTIONAL NO IMPACT	string character limit set to 100	Customer description, e.g. VIP

Customer

Model Property	Data Format	Description
ThirdPartySystem RTN OPTIONAL NO IMPACT	collection of third party systems	See: Third Party System

Third Party System

Model Property	Data Format	Description
ThirdPartySystemID RTN OPTIONAL NO IMPACT	string character limit set to 100	Identifier of third party system used by customer
Type RTN OPTIONAL NO IMPACT	enum	Type of third party system, Accepted values: Loyalty
SystemName RTN OPTIONAL NO IMPACT	string character limit set to 100	Name of third party system, e.g. Paytronix

CustomerID RTN OPTIONAL NO IMPACT	string	Customer identification number
THE PROPERTY OF THE PROPERTY O	character limit set to 100	Substantial Individual Figure 1
ProgramID RTN OPTIONAL NO IMPACT	string character limit set to 100	Program identification number
Amount dtiq optional NO IMPACT	decimal (up to 2 decimal places)	Loyalty discount amount
Points DTIQ OPTIONAL NO IMPACT	decimal (up to 2 decimal places)	Loyalty points used
	9	

360iQ Data API - Transaction Model - Totals Sub-models

Introduction

This article covers all transaction totals / payments / pricings related information

Usage examples provided in JSON format can be found here: 360iQDataAPI - Transaction Model

Sub-models

DTIQ - DTiQ model exclusive properties

RTN - RTN model properties

OPTIONAL - properties that client CAN provide. Optional properties can be omitted during construction of request

REQUIRED - properties that client MUST provide. Required string properties MUST HAVE a value, EMPTY STRINGS ARE NOT ALLOWED

NO IMPACT - properties that in current version of API have no impact on final result in DTiQ application

Pricing

Model Property	Data Format	Description
Surcharge RTN OPTIONAL	collection of surcharges	See: Surcharge
Tax rtn optional	collection of taxes	See: Tax
ItemPrice RTN REQUIRED	decimal (up to 2 decimal places)	Price of a product part
Discount RTN OPTIONAL	collection of discounts	See: Discount Since version 1.1 it is a ProductDiscount
Quantity DTIQ OPTIONAL	decimal (up to 2 decimal places)	Quantity of a product part

Total

Model Property	Data Format	Description
Surcharge RTN OPTIONAL	collection of surcharges	Surcharges included here are transaction specific, they do not refer to individual product items. See: Surcharge
Tax rtn optional	collection of taxes	Taxes included here are transaction specific, they do not refer to individual product items. See: Tax
ItemPrice RTN REQUIRED	decimal (up to 2 decimal places)	Total value of all products included in transaction. This value is sum of product prices without any taxes, surcharges or discounts applied.
Discount RTN OPTIONAL	collection of discounts	Discounts included here are transaction specific, they do not refer to individual product items. See: Discount

		Since version 1.1 it is a TransactionDiscount
Grautity RTN OPTIONAL	decimal (up to 2 decimal places)	Value of mandatory service fee

Payment

Model Property	Data Format	Description
tenderPresenceInd RTN OPTIONAL NO IMPACT	boolean	Indicates if payment occurred in location. True by default
depositInd RTN OPTIONAL NO IMPACT	boolean	Indicates if payment was a prepaid. False by default
Timestamp DTIQ REQUIRED	datetime	Date time timestamp of when payment occurred. UTC format without daylight saving Format: yyyy-MM-ddTHH:mm:ss
Status DTIQ REQUIRED	enum	Provide information about payment status. Accepted values: Accepted, Denied
Amount RTN REQUIRED	decimal (up to 2 decimal places)	Tendered amount
Tip RTN OPTIONAL	decimal (up to 2 decimal places)	Optional tip amount paid by customer
Change DTIQ OPTIONAL	decimal (up to 2 decimal places)	Payment change amount.
Gratuity RTN OPTIONAL	decimal (up to 2 decimal places)	Mandatory fee amount paid by customer
TenderType RTN REQUIRED	- 10	Used to set payment category See: TenderType
CardType RTN OPTIONAL		If provided, used to set payment name, if not value from TenderType is taken See: CardType
TenderDescription RTN OPTIONAL NO IMPACT	string character limit set to 100	Additional information regarding payment type
AuthorizationCode RTN OPTIONAL NO IMPACT	string character limit set to 100	Code returned by authorization system
CardEntryType RTN OPTIONAL NO IMPACT	-	See: CardEntryType
CustomerName RTN OPTIONAL NO IMPACT	string character limit set to 100	Name of customer making payment
LastFour RTN OPTIONAL NO IMPACT	string character limit set to 100	Four last digits of credit card number
FIRSTSIX RTN OPTIONAL NO IMPACT	string character limit set to 100	Six first digits of credit card number
AccountNumber RTN OPTIONAL NO IMPACT	string character limit set to 100	Specifies account information for tender types other than Cash and Credit Card

TenderType

Model Property	Data Format	Description
value RTN REQUIRED	enum	Describes tender type. Accepted values: Cash Coupon CreditCard InternetPayment Other GiftCard AccountPayment DebitCard Delivery UberEats Grubhub Doordash MobileOrder OnlineOrdering Check MealCard Lottery Postmates

CardType

Model Property	Data Format	Description
value RTN REQUIRED	string character limit set to 100	Describes payment name information, for example if TenderType is CreditCard, this value can be American Express, Visa etc.

CardEntryType

Model Property	Data Format	Description
value RTN OPTIONAL NO IMPACT	string character limit set to 100	Specifies how payment method was entered into the payment system

Promotion

Model Property	Data Format	Description
PromotionCode RTN OPTIONAL NO IMPACT	string character limit set to 100	Identifier of promotion
Description RTN OPTIONAL NO IMPACT	string character limit set to 100	Short promotion description or name

Surcharge

Model Property	Data Format	Description
amount RTN REQUIRED	decimal (up to 2 decimal places)	Surcharge amount
Description RTN REQUIRED	string character limit set to 100	Description of surcharge, e.g. Delivery fee

Tax

Model Property	Data Format	Description
amount RTN REQUIRED	decimal (up to 2 decimal places)	Tax amount
Description RTN REQUIRED	string character limit set to 100	Description of tax, e.g. State tax

Discount

Model Property	Data Format	Description
value RTN REQUIRED	decimal (up to 2 decimal places)	Discount value
Description RTN REQUIRED	string character limit set to 100	Short description or name of discount, e.g. Employee Discount , Senior Discount
Category DTIQ REQUIRED	string character limit set to 100	Name of discount category, e.g. Employee Discounts, Customer Discounts

ProductDiscount

Model Property	Data Format	Description
value RTN REQUIRED	decimal (up to 2 decimal places)	Discount value
Description RTN REQUIRED	string character limit set to 100	Short description or name of discount, e.g. Employee Discount , Senior Discount
Category DTIQ REQUIRED	string character limit set to 100	Name of discount category, e.g. Employee Discounts, Customer Discounts

TransactionDiscount

Model Property	Data Format	Description
ItemType ртю	enum	Indicator of final product state. Accepted values: Sale , Voided , Canceled
Quantity	decimal	Quantity of discount. If muliplayed by value will result in final discount amount.
value RTN REQUIRED	decimal (up to 2 decimal places)	Discount value

	string character limit set to 100	Short description or name of discount, e
Category DTIQ REQUIRED	string character limit set to 100	Name of discount category, e.g. Employ Discounts, Customer Discounts

360iQ Data API - Refund Transaction Model

Introduction

This article covers information about model for Refund Transactions that is used by 360iQDataAPI - Refund Transactions Endpoint

Model have to be provided in JSON format

- Introduction
- · Refund Transaction Model
 - EventType
 - EventTypeRefund
 - Refund
 - RefundTransactionType

Refund Transaction Model



A Refund Transaction Model must begin with Event Node

ртіQ - DTiQ model exclusive properties

RTN - RTN model properties

OPTIONAL - properties that client CAN provide. Optional properties can be omitted during construction of request

REQUIRED - properties that client MUST provide. Required string properties MUST HAVE a value, EMPTY STRINGS ARE NOT ALLOWED

NO IMPACT - properties that in current version of API have no impact on final result in DTiQ application

EventType

Event type for Refund Transactions is EventTypeRefund

EventTypeRefund

Model Property	Data Format	Description
Refund RTN REQUIRED		See: Refund

Refund

Model Property	Data Format	Description
RefundTotal RTN OPTIONAL NO IMPACT	decimal (up to 2 decimal places)	Total amount of refunded transaction
RefundReason RTN OPTIONAL	string character limit set to 50	Short information regarding refund reason
RefundReasonDescription RTN OPTIONAL NO IMPACT	string character limit set to 100	Further explanation of refund reason
RefundTransactionType RTN REQUIRED	-	See: Refund Transaction Type

RefundTransactionType

Model Property	Data Format	Description

360iQ Data API - Cash Operation Model

Introduction

This article covers information about model for cash operations that is used by 360iQDataAPI - Cash Operations Endpoint

Model consists of single drawer operation and have to be provided in JSON format

- Introduction
- · Cash Operation Model
 - Event Type
 - EventTypeDrawer
 - Drawer
 - Cash Management

Cash Operation Model

▲ Cash Operation Event must begin with Event Node

ртіQ - DTiQ model exclusive properties

RTN - RTN model properties

OPTIONAL - properties that client CAN provide. Optional properties can be omitted during construction of request

REQUIRED - properties that client MUST provide. Required string properties MUST HAVE a value, EMPTY STRINGS ARE NOT ALLOWED

NO IMPACT - properties that in current version of API have no impact on final result in DTiQ application

Event Type

Event type for Cash Operations is EventTypeDrawer

EventTypeDrawer

Model Property	Data Format	Description
Drawer RTN REQUIRED		See: Drawer

Drawer

Model Property	Data Format	Description
DrawerEventGUID RTN OPTIONAL NO IMPACT	GUID	GUID identifier of drawer operation
DrawerEventNumber DTIQ REQUIRED	integer	Number of the cash operation. This value should be unique in a scope of a BusinessDate and a device.
DrawerOperationType DTIQ REQUIRED	string character limit set to 100	Type of cash operation. Accepted values: CashIn - operation of removing money from tender to put it in safe CashDrop - operation of adding money to tender CashDeposit - current status of money in tender

		PaidOut - operation of removing money from tender for other purpose than putting it to safe
DrawerOpenTime RTN OPTIONAL NO IMPACT	datetime	Date time timestamp at which drawer was opened. UTC format without daylight saving Format: yyyy-MM-ddTHH:mm:ss
DrawerCloseTime RTN OPTIONAL NO IMPACT	datetime	Date time timestamp at which drawer was closed. UTC format without daylight saving Format: yyyy-MM-ddTHH:mm:ss
DrawerTransactionReason RTN OPTIONAL NO IMPACT	string character limit set to 100	Specifies why a drawer transaction was initiated
ReasonDescription RTN OPTIONAL NO IMPACT	string character limit set to 100	Textual information to further describe the reason for the drawer event
ReferencedTransactionGUID RTN OPTIONAL NO IMPACT	GUID	GUID identifier of transaction during which drawer operation was initiated. Can be left empty if drawer operation was initiated outside of transaction
CashManagement RTN REQUIRED	collection of cash managements	See: Cash Management

Cash Management

Model Property	Data Format	Description
Amount RTN REQUIRED	decimal (up to 2 decimal places)	Total amount of cash that was used during cash operation
MonetaryDeviceID RTN OPTIONAL NO IMPACT	string character limit set to 100	An identifier for an external device (e.g. coin dispenser, reverse ATM)
MonetaryDeviceDescription RTN OPTIONAL NO IMPACT	string character limit set to 100	A description of the external monetary device. • If MonetaryDeviceID is provided then MonetaryDeviceDescription is REQUIRED • If MonetaryDeviceID is not provided then MonetaryDeviceDescription is to be omitted

360iQ Data API - Employee Event Model

Introduction

This article covers information about the model for Employee Events that is used by 360iQDataAPI - Employee Events Endpoint

The model can consist of a single event PunchIn / PunchOut or pair of events and has to be provided in JSON format

- Introduction
- Employee Event Model
 - Event Type
 - EventTypeTimeCard
 - Time Card
 - ClockDataTransaction
 - Employee

Employee Event Model



Employee Event must begin with Event Node

ртіQ - DTiQ model exclusive properties

RTN - RTN model properties

ортіонаL - properties that client CAN provide. Optional properties can be omitted during construction of request

REQUIRED - properties that client MUST provide. Required string properties MUST HAVE a value, EMPTY STRINGS ARE NOT ALLOWED

NO IMPACT - properties that in current version of API have no impact on final result in DTiQ application

Event Type

Event type (JSON node name) for Employee Events is EventTypeTimeCard

EventTypeTimeCard

Model Property	Data Format	Description
TimeCard RTN REQUIRED		See: TimeCard

Time Card

Model Property	Data Format	Description
Employee RTN REQUIRED	-	See: Employee
ClockDataTransaction RTN REQUIRED	collection of clock data transactions	See: ClockDataTransaction

ClockDataTransaction

Model Property	Data Format	Description
TimeCardCorrelationGUID RTN REQUIRED	string cannot be longer than 36 characters and can only contain numbers, letters and hyphens	Time clock specific identifier. This is used in order to correlate PunchIn event with PunchOut event and vice versa

PunchType RTN REQUIRED	enum	Type of employee event. Accepted values: PunchIn , PunchOut
ClockDateTime RTN REQUIRED	datetime	Date time timestamp of the punch. UTC format without daylight saving Format: yyyy-MM-ddTHH:mm:ss
EmployeeIdentifier RTN OPTIONAL NO IMPACT	string character limit set to 100	An identifier for the employee who executed punch
CreatedTimestamp RTN REQUIRED	datetime	Date time timestamp of when the operation was executed, can be different from ClockDateTime which is timestamp of when the punch occurred. UTC format without daylight saving Format: yyyy-MM-ddTHH:mm:ss
Reason RTN OPTIONAL NO IMPACT	string character limit set to 100	Description of why event happened. e.g. Employee shift started

Employee

⚠ Employee put in TimeCard node refers to punch event i.e. it's an employee that made the punch and might not be the same one that initiated the event. This employee's information is included in Event Node

Property		Description
EmployeeID RTN REQUIRED	string character limit set to 50	Identification number of employee that executed operation
EmployeeFullName DTIQ OPTIONAL	string character limit set to 100	Name of employee that executed operation

360iQ Data API - Integration development process

The document describes steps on how the integration with 360iQ API should be performed

Getting access to the documentation

The documentation repository contains a description of available data models and data exchange schemas

There can be also found a set of files with data to be used for example upload.

Solution development using a SandBox environment

A partner company receives:

- · access to sandbox data API, with credentials allowing the generation of the access token
- · access to 360iQ web application with a user and locations assigned to that user

Token generation

A partner company generates a token in the sandbox environment using the received credentials

Uploading a list of locations

A partner company sends a list of locations to the sandbox environment and informs the 360iQ that such an upload occurred.

Verifying and assigning the locations

360iQ assigns the uploaded locations to 360iQ locations created for the partner and informs about assignment results

Developing and testing the data upload endpoints

A partner company prepares a testing data set to fill all testing scenarios. The results of every scenario can be reviewed in the 360iQ application.

This step continues until the results are satisfactory

Acceptance report

A partner company prepares a testing result report that contains a list of test cases. Each case should consist of

- 1. Description of the case
- 2. Comment about acceptance or if case is not-used/used by the partner
- 3. Data uploaded for the case
- 4. Result from the application (receipt)

Approval before giving access to production environment

When the report is received and results are confirmed a partner can be moved to production environment.

Granting access to production environment

A partner company receives access to productional 360iQ Data API with credentials allowing creating tokens on the production environment.

From that moment partner company is allowed to:

- ${\bf 1.} \ Upload \ the \ locations \ set \ that \ can \ be \ mapped \ with \ 360iQ \ locations \ by \ the \ configuration \ team$
- 2. Upload the transactional data to for mapped locations

