

OData Guide

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Overview

ADP Application Programming Interfaces (APIs) support the following options defined in Open Data Protocol (OData):

- \$select
- \$filter
- \$top
- \$skip

These options allow a client device to control the representation that it gets back from the server.

Multiple query parameters may be used together by separating each option with the **&** character.

What is OData?

OData is a standardized protocol built over existing Hypertext Transfer Protocol (HTTP) and Representational State Transfer (REST) protocols supporting CRUD (Create, Read, Update, Delete) operations for creating and consuming data APIs.

For more information you can visit: <https://www.odata.org/getting-started/understand-odata-in-6-steps/>.

Types of OData Parameters

Using \$select

The \$select option selects a subset of properties to include in the response.

For example,

- To get only the legal name of each worker, use the following query:

```
GET https://api.adp.com/hr/v2/workers?$select=workers/person/legalName
```

- To get both the legal name and Associate OID of each worker, use the following query:

```
GET https://api.adp.com/hr/v2/workers?$select=workers/associateOID,workers/person/legalName
```

Using \$filter

The \$filter option filters a collection of resources addressed by a request URL. The expression specified with \$filter is evaluated for each resource in the collection, and only items where the expression evaluates to true are included in the response.

For example,

- To get only workers reporting to Jane Doe, use the following query:

```
GET https://api.adp.com/hr/v2/workers?$filter=workers/workAssignments/reportsTo/positionID%20eq%20%2793V000061%27
```

- To get workers reporting to Jane Doe and also workers whose status is Active:

```
GET https://api.adp.com/hr/v2/workers?$filter=workers/workAssignments/assignmentStatus/statusCode/codeValue eq 'A' and workers/workAssignments/reportsTo/positionID eq '94N000061'
```

NOTE: Supported \$filter resource paths will vary by ADP product.

Using \$stop

The \$stop option requests the number of items in the queried collection to be included in the result.

The following request returns the first two workers of the workers collection:

```
GET https://api.adp.com/hr/v2/workers?$stop=2
```

Using \$skip

The \$skip option specifies the number of items in the queried collection to be skipped and not included in the result.

```
GET https://api.adp.com/hr/v2/workers?$skip=18
```

Pagination Using \$stop and \$skip for Large Collections

The request below returns 20 workers starting with the 51st worker of the workers collection while using HR V2 Workers API.

```
GET https://api.adp.com/hr/v2/workers?$stop=20&$skip=50
```

Note: While using Pagination, when you reach at the end of all the records, a 204 response code with No Content will be returned.

How to Check Whether a GET Call Supports \$select or \$filter

OData parameters can only be used with the GET calls. You need to call the meta version of the API, this can be done by appending **'/meta'** to the end of the resource.

A sample response snippet from hr/v2/workers is as follows:

The field **"queryOptionCode": "\$select"** gives us the idea that \$select can be used as an OData parameter for the API and emails, faxes, landlines, mobiles, and so on that are the objects for which select filter can be used.

```
{
  "meta": {
    "queryCriteria": [
      {
        "itemID": "q1",
        "queryOptionCode": "$select",
        "queryOptionTypeCode": "OData",
        "resourcePaths": [
          "workers/associateOID",
          "workers/businessCommunication",
          "workers/businessCommunication/emails",
          "workers/businessCommunication/faxes",
          "workers/businessCommunication/landlines",
          "workers/businessCommunication/mobiles",
          "workers/businessCommunication/pagers",
          "workers/customFieldGroup",
          "workers/customFieldGroup/amountFields",
          "workers/customFieldGroup/codeFields"
        ]
      }
    ]
  }
}
```

In the same way you can find out about the \$filter parameter, If the "/meta" response results in tags such as "**queryOptionCode**": "**\$filter**", it implies that the API supports \$filter.

A sample response snippet from hr/v2/workers follows.

In the following example, the \$filter can be used as **/hr/v2/workers/workAssignments/reportsTo/positionID%20eq%20%2794N293601%27**.

Here **94N293601** is the value on which we are applying filter.

```
{
  "itemID": "q2",
  "queryOptionCode": "$filter",
  "queryOptionTypeCode": "OData",
  "resourcePaths": [
    "workers/workAssignments/reportsTo/positionID"
  ],
  "queryValueCodeList": {
    "listItems": [
      {
        "codeValue": "94N293601",
        "shortName": "iattam1Manager, Test"
      },
      {
        "codeValue": "94N000061",
        "shortName": "Asciber, Ene"
      },
      {
        "codeValue": "938009669",
        "shortName": "BERROA, TERE J."
      }
    ]
  },
  "logicalOperators": [
    {
      "logicalOperatorCode": "eq"
    }
  ]
}
```

```
{  
"logicalOperatorCode": "and"  
}  
]  
}
```