

Software Reporting API

The Software Reporting API returns data related to software applications installed on a device.

For more information about using Absolute APIs, see *Working with Absolute APIs* (<https://www.absolute.com/media/2221/abt-api-working-with-absolute.pdf>).

The Software Reporting API endpoint requires the following authentication headers in each request:

Authentication headers

Header	Notes	Description
Host	required	The domain name of the server where the request is sent Example: Host: api.absolute.com
Content-Type	required	The media type of the resource Example: Content-Type: application/json
X-Abs-Date	required	The automatically generated header that indicates the time (in UTC) the request was made encoded in a special header Format: <YYYY><MM><DD>T<HH><MM><SS>Z Example: X-Abs-Date: 20210104T162253Z
Authorization	required	The HTTP authorization header Format: <algorithm> Credential=<token id>/<CredentialScope>, SignedHeaders=<SignedHeaders>, Signature=<signature> Example: Authorization: ABS1-HMAC-SHA-256 Credential=b62182d4-f3b6-410f-8d1b-2f14bb66645f/20210104/cadc/abs1, SignedHeaders=host;content-type;x-abs-date,Signature=a799472df4e9fb2830823dc926103cbfaa8f56b1a7b6e51275534c9104bb3998

See [Working with Absolute APIs](#) for more information.

sw/deviceapplications

The `/v2/sw/deviceapplications` RESTful resource returns a flat list of device records and the corresponding software application data for each device on the account that you have access to or that meets your filtering criteria.

The default sort is on **deviceUid** and/or **appName** so that the applications on the device will be contiguous in the result as it is paged through.

Request method and URI

GET `v2/sw/deviceapplications`

Request

Header parameters

The [Authentication headers](#) are required.

Query string parameters

You can use the following Open Data Protocol (OData) query options: \$top, \$skip, \$filter, \$orderby, and \$select. Query string parameters must be alphabetized and URI encoded. The following table describes the OData query options:

Accepted Odata query options

Option	Notes	Data type	Description
\$top	required	integer	Returns the first <n> elements from the search, where <n> is an integer from 1 to 10000 To limit the number of records returned to the first 10, use: \$top=10 Example: GET /v2/sw/deviceapplications?\$top=10
\$skip	required	integer	Excludes the number of specified results from the search Use with the \$top option to paginate the data in batches Optional for the first page but required for subsequent paging To paginate the data in batches of 20, use: \$skip=20&\$top=20 Example: GET /v2/sw/deviceapplications?\$skip=20&\$top=20
\$filter	optional	string OR number OR Boolean OR datetime	Identifies all the devices and applications that meet the specified criteria Strings must be enclosed in single quotation marks ('') To view a list of the first 10 records of devices with Slack installed, use: \$filter=appName eq 'Slack'&\$top=10 Example: GET /v2/sw/deviceapplications?\$filter=appName%20eq%20%27Slack%27&\$top=10 To view a list of the first 10 records of devices with applications installed that have 'Microsoft' in the name, use \$filter=substringof('Microsoft', appName)&\$top=10 Example: GET /v2/sw/deviceapplications?\$filter=substringof%28%27Microsoft%27%2CappName%29&\$top=10
\$orderby	optional	string	Sorts the resulting list according to the properties that you provide Order by multiple fields using a comma-separated list of selection clauses To search by appPublisher in ascending order, use: \$orderby=appPublisher asc Optionally, you can exclude "asc" GET /v2/sw/deviceapplications?\$orderby=appPublisher%20asc GET /v2/sw/deviceapplications?\$orderby=appPublisher
\$select	optional	string	Returns values only for the fields that meet the specified criteria in the query All other fields are returned with a null value Select multiple fields using a comma-separated list of selection clauses To return the first 10 records and only include values for the unique ID and name of the application on the devices, use: \$select=esn, appName&\$top=10 Example: GET /v2/sw/deviceapplications?\$select=esn%2CappName&\$top=10

Example: GET /v2/sw/deviceapplications request

```
GET https://api.absolute.com/v2/sw/deviceapplications?%24top=10
Content-Type: application/json
Authorization: ABS1-HMAC-SHA-256 Credential=8b2d6fe7-0819-49b7-b29b-f565189d5e95/20190627/cadc/abs1, SignedHeaders=host;content-type;x-abs-date, Signature=f84db5f4b00d1c8beca909fdaca6356546ea6fce8b82874132df13c920d4a2c5
X-Abs-Date: 20190627T004516Z
Host: api.absolute.com
```

Request body

There is no request body.

Response

A successful request returns an HTTP status code of 200 (OK) and the response body.

Example: GET /v2/sw/deviceapplications response header

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=UTF-8
```

Response body

The following table describes the fields returned for each request:

GET /v2/sw/deviceapplications response parameters

Parameter	Data type	Description
deviceAppld	string	The unique ID of the application Example: 5d8a714ae55de031eaefa08a
deviceUid	string	The system-defined unique identifier of the device Example: 56be8d1f-2eb8-4e9b-bbd6-1aab032abcde
accountUid	string	The unique ID associated with this Absolute account Example: e7a9fb73-44b0-4f5d-990b-39ff884425eb
appld	string	The identifier of the application Example: 5d8a714ae55de031eaefa042
appName	string	The name of the application Example: 3D Viewer
appPublisher	string	The name of the software publisher of the application Example: Microsoft Corporation
appOriginalPublisher	string	The original name of the software publisher of the application Example: Microsoft Corporation
appVersion	string	The version of the application Example: 6.1903.4012.0

Parameter	Data type	Description
esn	string	The system-defined unique Electronic Serial Number (ESN) assigned to the Absolute agent installed on the device Example: 1R4JRVF14GAA3YH90008
deviceName	string	The name of the device Example: LPTP_Bob
deviceSerialNumber	string	The identification number that is assigned to the device by the device manufacturer Example: CNF83051BN
userName	string	Includes the device name, and the username of the user logged in to the device at the time of the agent call Example: LPTP_Bob\ bob
installPath	string	The location where the application is installed Example: C:\Program Files\WindowsApps\Microsoft.Microsoft3DViewer_6.1903.4012.0_x64__8wekyb3d8bbwe
installDate	datetime	The date (in UNIX Epoch time) that the application was installed Example: 1571870937437
firstDetectUtc	datetime	The date and time (in UNIX Epoch time) when the indicated version of the application was first detected on the device Example: 1610836455117
osName	string	The operating system that is installed on the device Example: Windows 10 (64 bit)
lastScanTimeUtc	datetime	The date and time (in UNIX Epoch time) of the most recent Endpoint Data Discovery (EDD) scan Example: 1610836455117

If there are no records that match the request, an empty array is returned.

Example: GET /v2/sw/deviceapplications response

```
[
  {
    "deviceAppId": "5d8a714ae55de031eaefa08a",
    "deviceUid": "56be8d1f-2eb8-4e9b-bbd6-1aab032abcde",
    "accountUid": "e7a9fb73-44b0-4f5d-990b-39ff884425eb",
    "appId": "5d8a714ae55de031eaefa042",
    "appName": "3D Viewer",
    "appPublisher": "Microsoft Corporation",
    "appOriginalPublisher": "Microsoft Corporation",
    "appVersion": "6.1903.4012.0",
    "esn": "1R4JRVF14GAA3YH90008",
    "deviceName": "LPTP_Bob",
    "deviceSerialNumber": "CNF83051BN",
    "userName": "LPTP_Bob\|bob",
    "installPath": "C:\\Program Files\\WindowsApps\\Microsoft.Print3D_3.3.791.0_x64__8wekyb3d8bbwe",
    "installDate": 1551846370169,
  }
]
```

```

    "firstDetectUtc": 1610836455117,
    "osName": "Windows 10 (64 bit)",
    "lastScanTimeUtc": 1562099244308
  }
]

```

Examples

The following examples demonstrate some of the possible ways to use the Software Reporting API. Each example includes the request and the response.

Example 1

The following is a request for the software inventory of the first two (records with) applications and the response. In this example, the applications are on different devices.

Request

```

GET https://api.absolute.com/v2/sw/deviceapplications?%24top=2
Content-Type: application/json
Authorization: ABS1-HMAC-SHA-256 Credential=8967f835-40ab-40fc-820e-2792381435db/20190924/cadc/abs1, SignedHeaders=host;content-type;x-abs-date, Signature=e63fafb213fccac921bc36f5be05af80390e751a3964d624ec59671b1df0dc7a
X-Abs-Date: 20190924T202742Z
host: api.absolute.com

```

Response

```

[
  {
    "deviceAppId": "5d8a714ae55de031eaefa08a",
    "deviceUid": "56be8d1f-2eb8-4e9b-bbd6-1aab032abcde",
    "accountUid": "e7a9fb73-44b0-4f5d-990b-39ff884425eb",
    "appId": "5d8a714ae55de031eaefa042",
    "appName": "3D Viewer",
    "appPublisher": "Microsoft Corporation",
    "appOriginalPublisher": "Microsoft Corporation",
    "appVersion": "6.1903.4012.0",
    "esn": "1R4JRVF14GAA3YH90008",
    "deviceName": "LPTP_Bob",
    "deviceSerialNumber": "CNF83051BN",
    "userName": "LPTP_Bob\\bob",
    "installPath": "C:\\Program Files\\WindowsApps\\Microsoft.Print3D_3.3.791.0_x64__8wekyb3d8bbwe",
    "installDate": 1551846370169,
    "firstDetectUtc": 1610836455117,
    "osName": "Windows 10 (64 bit)",
    "lastScanTimeUtc": 1562099244308
  },
  {
    "deviceAppId": "5d8a714ae55de031eaefa028",
    "deviceUid": "56be8d1f-2eb8-4e9b-bbd6-2bbc032bcdef",
    "accountUid": "e7a9fb73-44b0-4f5d-990b-39ff884425eb",
    "appId": "5d8a714ae55de031eaef9fe6",
    "appName": "Adobe AIR",
    "appPublisher": "Adobe Systems Incorporated",
    "appOriginalPublisher": "Adobe Systems Incorporated",

```

```

    "appVersion": "31.0.0.96",
    "esn": "2F16CMW9WTAA1VGY0010",
    "deviceName": "DKTP_Bob",
    "deviceSerialNumber": "4197 8339 4553 5347 5727 9874 90",
    "userName": "DKTP_Bob\\bob",
    "installPath": "c:\\Program Files (x86)\\Common Files\\Adobe AIR\\",
    "installDate": 1571870937437,
    "firstDetectUtc": 1562099244308,
    "osName": "Windows 10 (64 bit)",
    "lastScanTimeUtc": 1562099244308
  }
]

```

Example 2

The following is a request for the software inventory of the first two (records with) applications on a device with the unique Identifier of **1R4JRVF14GAA3YH90008**.

Request

```

GET
https://api.absolute.com/v2/sw/deviceapplications?%24filter=esn%20eq%20%271R4JRVF14GAA3YH90008%27&%24top=2
Host:api.absolute.com
Content-Type:application/json
X-Abs-Date:20190627T164041Z
Authorization:ABS1-HMAC-SHA-256 Credential=2eae7a26-4060-49c4-95cd-fe7c2877ef73/20190627/cadc/abs1, SignedHeaders=host;content-type;x-abs-date, Signature=e4708107faca52b0fe0c08fa37f0701eba86f3abc322ce213b51723fac50504a

```

Response

```

[
  {
    "deviceAppId": "5d8a714ae55de031eaefa08a",
    "deviceUid": "56be8d1f-2eb8-4e9b-bbd6-1aab032abcde",
    "accountUid": "e7a9fb73-44b0-4f5d-990b-39ff884425eb",
    "appId": "5d8a714ae55de031eaefa042",
    "appName": "3D Viewer",
    "appPublisher": "Microsoft Corporation",
    "appOriginalPublisher": "Microsoft Corporation",
    "appVersion": "6.1903.4012.0",
    "esn": "1R4JRVF14GAA3YH90008",
    "deviceName": "LPTP_Bob",
    "deviceSerialNumber": "CNF83051BN",
    "userName": "LPTP_Bob\\bob",
    "installPath": "C:\\Program Files\\WindowsApps\\Microsoft.Print3D_3.3.791.0_x64__8wekyb3d8bbwe",
    "installDate": 1551848063866,
    "firstDetectUtc": 1610836455117,
    "osName": "Windows 10 (64 bit)",
    "lastScanTimeUtc": 1610836455117
  },
  {
    "deviceAppId": "5d14f12fb511a6000ad2c458",
    "deviceUid": "56be8d1f-2eb8-4e9b-bbd6-1aab032abcde",
    "accountUid": "e7a9fb73-44b0-4f5d-990b-39ff884425eb",

```

```

    "appId": "5d14f12fb511a6000ad2c308",
    "appName": "People",
    "appPublisher": "Microsoft Corporation",
    "appOriginalPublisher": "Microsoft Corporation",
    "appVersion": "10.1909.10841.0",
    "esn": "1R4JRVF14GAA3YH90008",
    "deviceName": "LPTP_Bob",
    "deviceSerialNumber": "CNF83051BN",
    "userName": "LPTP_Bob\\bob",
    "installPath": "C:\\Program Files\\WindowsApps\\Microsoft.People_10.1909.10841.0_x64_
    _8wekyb3d8bbwe",
    "installDate": "1595918950535",
    "firstDetectUtc": 1610836455117,
    "osName": "Windows 10 (64 bit)",
    "lastScanTimeUtc": 1610836455117
  }
]

```

Example 3

The following is a request for the software inventory of the first two devices that have an application called **Slack** installed and only show values for **appName** and **esn** in the response.

All other fields have a null value.

Request

```

GET
https://api.absolute.com/v2/sw/deviceapplications?%24filter=appName%20eq%20%27Slack%27&%24select=esn%2CappName%24top=2
Content-Type: application/json
Authorization: ABS1-HMAC-SHA-256 Credential=a9090871-8efa-4b9e-a7e3-8761badc3e94/20190627/cadc/abs1, SignedHeaders=host;content-type;x-abs-date, Signature=4049355bc282349f6d49781eeb0973e1099ae213def868d043364ad110a41c4e
X-Abs-Date: 20190627T004827Z
host: api.absolute.com

```

Response

```

[
  {
    "deviceAppId": null,
    "deviceUid": null,
    "accountUid": null,
    "appId": null,
    "appName": "Slack",
    "appPublisher": null,
    "appOriginalPublisher": null,
    "appVersion": null,
    "esn": "1R4JRVF14GAA3YH90008",
    "deviceName": null,
    "deviceSerialNumber": null,
    "userName": null,
    "installPath": null,
    "installDate": null,
    "firstDetectUtc": null,
    "osName": null,
    "lastScanTimeUtc": null
  }
]

```

```

    },
    {
      "deviceAppId": null,
      "deviceUid": null,
      "accountUid": null,
      "appId": null,
      "appName": "Slack",
      "appPublisher": null,
      "appOriginalPublisher": null,
      "appVersion": null,
      "esn": "2F16CMW9WTAA1VGY0010",
      "deviceName": null,
      "deviceSerialNumber": null,
      "userName": null,
      "installPath": null,
      "installDate": null,
      "firstDetectUtc": null,
      "osName": null,
      "lastScanTimeUtc": null
    }
  ]

```

Example 4

The following is a request for the software inventory of the first two devices that have an application with 'Microsoft' in the name installed. In this example, the applications are on the same device.

Request

```

GET
https://api.absolute.com/v2/sw/deviceapplications?%24filter=substringof%28%27Microsoft%27%2
CappName%29&%24top=10&%24top=2
Host:api.absolute.com
Content-Type:application/json
X-Abs-Date:20190627T164041Z
Authorization:ABS1-HMAC-SHA-256 Credential=2eae7a26-4060-49c4-95cd-
fe7c2877ef73/20190627/cadc/abs1, SignedHeaders=host;content-type;x-abs-date,
Signature=e4708107faca52b0fe0c08fa37f0701eba86f3abc322ce213b51723fac50504a

```

Response

```

[
  {
    "deviceAppId": "5d8a714ae55de031eaefa08a",
    "deviceUid": "56be8d1f-2eb8-4e9b-bbd6-1aab032abcde",
    "accountUid": "e7a9fb73-44b0-4f5d-990b-39ff884425eb",
    "appId": "5d8a714ae55de031eaefa042",
    "appName": "3D Viewer",
    "appPublisher": "Microsoft Corporation",
    "appOriginalPublisher": "Microsoft Corporation",
    "appVersion": "6.1903.4012.0",
    "esn": "1R4JRVF14GAA3YH90008",
    "deviceName": "LPTP_Bob",
    "deviceSerialNumber": "CNF83051BN",
    "userName": "LPTP_Bob\\bob",
    "installPath": "C:\\Program Files\\WindowsApps\\Microsoft.Print3D_3.3.791.0_x64__
8wekyb3d8bbwe",

```

```

    "installDate": 1551848063866,
    "firstDetectUtc": 1610836455117,
    "osName": "Windows 10 (64 bit)",
    "lastScanTimeUtc": 1610836455117
  },
  {
    "deviceAppId": "5d14f12fb511a6000ad2c458",
    "deviceUid": "56be8d1f-2eb8-4e9b-bbd6-1aab032abcde",
    "accountUid": "e7a9fb73-44b0-4f5d-990b-39ff884425eb",
    "appId": "5d14f12fb511a6000ad2c308",
    "appName": "People",
    "appPublisher": "Microsoft Corporation",
    "appOriginalPublisher": "Microsoft Corporation",
    "appVersion": "10.1909.10841.0",
    "esn": "1R4JRVF14GAA3YH90008",
    "deviceName": "LPTP_Bob",
    "deviceSerialNumber": "CNF83051BN",
    "installPath": "C:\\Program Files\\WindowsApps\\Microsoft.People_10.1909.10841.0_x64_
_8wekyb3d8bbwe",
    "userName": "LPTP_Bob\\bob",
    "firstDetectUtc": 1610836455117,
    "osName": "Windows 10 (64 bit)",
    "lastScanTimeUtc": 1610836455117
  }
]

```

Errors

The following table lists the possible status codes and messages that may be returned when using this API.

Status code	Message	Action
400 Bad Request	\$top is required and should be greater than 0	Verify that there is a value for \$top and that it is valid.
400 Bad Request	\$top value was exceeded the maximum value: 10000	Verify that the value for \$top is 10000 or smaller.
401 Unauthorized	The Authentication failed.	Verify that the correct Token ID and Secret key were used in the authentication.
403 Unauthorized	The Authorization failed	If the error persists, contact Absolute Technical Support (www.absolute.com/en/support).
500 Server Error	An internal server error occurred.	If the error persists, contact Absolute Technical Support (www.absolute.com/en/support).

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