

Software Reporting API

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April 2024

Software Reporting API — Document revision: 9.0-0

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NOTE Depending on the permissions associated with your API token and the [Absolute product licenses](#) associated with your account, the Software Reporting API may not be available.

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](#).

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

Authentication header parameters

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: 20210924T202742Z
Authorization	required	The HTTP authorization header Format: <algorithm> Credential=<token id>/<CredentialScope>, SignedHeaders=<SignedHeaders>, Signature=<signature> Example: Authorization: ABS1-HMAC-SHA-256 Credential=8b2d6fe7-0819-49b7-b29b-f565189d5e95/20210924/cadc/abs1, SignedHeaders=host;content-type;x-abs-date, Signature=f84db5f4b00d1c8beca909fdaca6356546ea6fce8b82874132df13c920d4a2c5

Example Authentication header parameters

```

1 Host: api.absolute.com
2 Content-Type: application/json
3 X-Abs-Date: 20210924T202742Z
4 Authorization: ABS1-HMAC-SHA-256 Credential=8b2d6fe7-0819-49b7-b29b-
  f565189d5e95/20210924/cadc/abs, SignedHeaders=host;content-type;x-abs-date,
  Signature=f84db5f4b00d1c8beca909fdaca6356546ea6fce8b82874132df13c920d4a2c5

```

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

GET /v2/sw/deviceapplications

The GET /v2/sw/deviceapplications endpoint 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

Request header

The request header consists of the resource URL, and optional query parameters, and the header parameters.

Query parameters

The request accepts some Open Data Protocol (OData) system query parameters. Query string parameters need to be alphabetized and URI encoded. The following table describes the query parameters that can be used as part of the request:

Accepted OData query parameters

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 See Pagination in Working with Absolute APIs for more information on using \$top and \$skip for pagination.
\$filter	optional	string OR string <date-time> OR number OR boolean	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 view a list of the first 10 records ordered by the application publisher in ascending order, use: \$orderby=appPublisher asc&\$top=10 Example: GET /v2/sw/deviceapplications?\$orderby=appPublisher%20asc&\$top=10 Optionally, you can exclude asc: GET /v2/sw/deviceapplications?\$orderby=appPublisher&\$top=10

Option	Notes	Data type	Description
\$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: <pre>\$select=esn,appName&\$top=10</pre> Example: <pre>GET /v2/sw/deviceapplications?%24select=esn %2CappName&%24top=10</pre>

See *Filtering and sorting* in [Working with Absolute APIs](#) for more information.

Header parameters

The [Authentication headers](#) are required.

The following example returns the first 10 software records.

Example GET /v2/sw/deviceapplications request header

```
1 GET https://https://api.absolute.com/v2/sw/deviceapplications?%24top=10
2 Host: api.absolute.com
3 Content-Type: application/json
4 X-Abs-Date: 20220808T173504Z
5 Authorization: ABS1-HMAC-SHA-256 Credential=5a9c1a74-40fe-4f9f-a77a-
  9a76ac749e3f/20220808/cadc/abs1, SignedHeaders=host;content-type;x-abs-date,
  Signature=c18dd5aa099f22750ab6ebc1785b19d44e0d094f169a9475dd00cfabb0674a10
```

Request body

The request body is an empty string.

Response

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

Response header

Example GET /v2/sw/deviceapplications response header

```
1 HTTP/1.1 200 OK
2 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
deviceAppId	string	The unique ID of the application Example: 5d8a714ae55de031eaeafa08a
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
appId	string	The identifier of the application Example: 5d8a714ae55de031eaeafa042
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
esn	string	The system-defined unique Electronic Serial Number (ESN) assigned to the Secure Endpoint Agent installed on the device Example: 2BU2PJD28VAA1UYL0008
deviceName	string	The name of the device Example: LPTP_TJordan
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_TJordan tjordan
installPath	string	The location where the application is installed Example: C: Program Files WindowsApps Microsoft.Microsoft3DViewer_6.1903.4012.0_x64__8wekyb3d8bbwe
installDate	number	The date (in UNIX Epoch time) that the application was installed Example: 1571870937437

Parameter	Data type	Description
firstDetectUtc	number	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	number	The date and time (in UNIX Epoch time) of the most recent Installed Software (SNG) scan Example: 1610836455117

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

Example GET /v2/sw/deviceapplications response body

```
1  [
2    {
3      "deviceAppId": "5d8a714ae55de031eaeafa08a",
4      "deviceUid": "56be8d1f-2eb8-4e9b-bbd6-1aab032abcde",
5      "accountUid": "e7a9fb73-44b0-4f5d-990b-39ff884425eb",
6      "appId": "5d8a714ae55de031eaeafa042",
7      "appName": "3D Viewer",
8      "appPublisher": "Microsoft Corporation",
9      "appOriginalPublisher": "Microsoft Corporation",
10     "appVersion": "6.1903.4012.0",
11     "esn": "2BU2PJD28VAA1UYL0008",
12     "deviceName": "LPTP_TJordan",
13     "deviceSerialNumber": "CNF83051BN",
14     "userName": "LPTP_TJordan\\tjordan",
15     "installPath": "C:\\Program Files\\WindowsApps\\Microsoft.Print3D_3.3.791.0_
x64__8wekyb3d8bbwe",
16     "installDate": 1551846370169,
17     "firstDetectUtc": 1610836455117,
18     "osName": "Windows 10 (64 bit)",
19     "lastScanTimeUtc": 1562099244308
20   }
21 ]
```

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

Example 1 Request header

```
1 GET https://https://api.absolute.com/v2/sw/deviceapplications?%24top=2
2 Host: api.absolute.com
3 Content-Type: application/json
4 X-Abs-Date: 20220808T174036Z
5 Authorization: ABS1-HMAC-SHA-256 Credential=5a9c1a74-40fe-4f9f-a77a-
  9a76ac749e3f/20220808/cadc/abs1, SignedHeaders=host;content-type;x-abs-date,
  Signature=fbe610214d0fa468df2877ccdc7ad049f0a474e738205520441ac21e544c71f5
```

Response

Example 1 Response body

```
1  [
2    {
3      "deviceAppId": "5d8a714ae55de031eaeafa08a",
4      "deviceUid": "56be8d1f-2eb8-4e9b-bbd6-1aab032abcde",
5      "accountUid": "e7a9fb73-44b0-4f5d-990b-39ff884425eb",
6      "appId": "5d8a714ae55de031eaeafa042",
7      "appName": "3D Viewer",
8      "appPublisher": "Microsoft Corporation",
9      "appOriginalPublisher": "Microsoft Corporation",
10     "appVersion": "6.1903.4012.0",
11     "esn": "2BU2PJD28VAA1UYL0008",
12     "deviceName": "LPTP_TJordan",
13     "deviceSerialNumber": "CNF83051BN",
14     "userName": "LPTP_TJordan\\tjordan",
15     "installPath": "C:\\Program Files\\WindowsApps\\Microsoft.Print3D_3.3.791.0_
x64__8wekyb3d8bbwe",
16     "installDate": 1551846370169,
17     "firstDetectUtc": 1610836455117,
18     "osName": "Windows 10 (64 bit)",
19     "lastScanTimeUtc": 1562099244308
20   },
21   {
22     "deviceAppId": "5d8a714ae55de031eaeafa028",
23     "deviceUid": "56be8d1f-2eb8-4e9b-bbd6-2bbc032bcdef",
24     "accountUid": "e7a9fb73-44b0-4f5d-990b-39ff884425eb",
25     "appId": "5d8a714ae55de031eaeaf9fe6",
26     "appName": "Adobe AIR",
27     "appPublisher": "Adobe Systems Incorporated",
28     "appOriginalPublisher": "Adobe Systems Incorporated",
29     "appVersion": "31.0.0.96",
30     "esn": "2BU2PJD28VAA1UYL0012",
31     "deviceName": "LPTP_BSmith",
32     "deviceSerialNumber": "Q2F83051234",
33     "userName": "LPTP_BSmith\\bsmith",
34     "installPath": "c:\\Program Files (x86)\\Common Files\\Adobe AIR\\",
35     "installDate": 1571870937437,
```

Example 1 Response body

```

36     "firstDetectUtc": 1562099244308,
37     "osName": "Windows 10 (64 bit)",
38     "lastScanTimeUtc": 1562099244308
39   }
40 ]

```

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 **2BU2PJD28VAA1UYL0008**.

Request**Example 2 Request header**

```

1  GET
   https://https://api.absolute.com/v2/sw/deviceapplications?%24filter=esn%20eq%20%272BU2
   PJD28VAA1UYL0008%27&%24top=2
2  Host: api.absolute.com
3  Content-Type: application/json
4  X-Abs-Date: 20220808T174401Z
5  Authorization: ABS1-HMAC-SHA-256 Credential=8b2d6fe7-0819-49b7-b29b-
   f565189d5e95/20190627/cadc/abs1, SignedHeaders=host;content-type;x-abs-date,
   Signature=f84db5f4b00d1c8beca909fdaca6356546ea6fce8b82874132df13c920d4a2c5

```

Response**Example 2 Response body**

```

1  [
2    {
3      "deviceAppId": "5d8a714ae55de031eaeafa08a",
4      "deviceUid": "56be8d1f-2eb8-4e9b-bbd6-1aab032abcde",
5      "accountUid": "e7a9fb73-44b0-4f5d-990b-39ff884425eb",
6      "appId": "5d8a714ae55de031eaeafa042",
7      "appName": "3D Viewer",
8      "appPublisher": "Microsoft Corporation",
9      "appOriginalPublisher": "Microsoft Corporation",
10     "appVersion": "6.1903.4012.0",
11     "esn": "2BU2PJD28VAA1UYL0008",
12     "deviceName": "LPTP_TJordan",
13     "deviceSerialNumber": "CNF83051BN",
14     "userName": "LPTP_TJordan\\tjordan",
15     "installPath": "C:\\Program Files\\WindowsApps\\Microsoft.Print3D_3.3.791.0_
x64__8wekyb3d8bbwe",
16     "installDate": 1551848063866,
17     "firstDetectUtc": 1610836455117,
18     "osName": "Windows 10 (64 bit)",
19     "lastScanTimeUtc": 1610836455117
20   },
21   {
22     "deviceAppId": "5d14f12fb511a6000ad2c458",

```

Example 2 Response body

```

23     "deviceId": "56be8d1f-2eb8-4e9b-bbd6-1aab032abcde",
24     "accountUid": "e7a9fb73-44b0-4f5d-990b-39ff884425eb",
25     "appId": "5d14f12fb511a6000ad2c308",
26     "appName": "People",
27     "appPublisher": "Microsoft Corporation",
28     "appOriginalPublisher": "Microsoft Corporation",
29     "appVersion": "10.1909.10841.0",
30     "esn": "2BU2PJD28VAA1UYL0008",
31     "deviceName": "LPTP_TJordan",
32     "deviceSerialNumber": "CNF83051BN",
33     "userName": "LPTP_TJordan\\tjordan",
34     "installPath": "C:\\Program Files\\WindowsApps\\Microsoft.People_
10.1909.10841.0_x64__8wekyb3d8bbwe",
35     "installDate": "1595918950535",
36     "firstDetectUtc": 1610836455117,
37     "osName": "Windows 10 (64 bit)",
38     "lastScanTimeUtc": 1610836455117
39   }
40 ]

```

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**Example 3 Request header**

```

1  GET
   https://https://api.absolute.com/v2/sw/deviceapplications?%24filter=appName%20eq%20%27
   Slack%27&%24select=esn%2CappName%24top=2
2  Host: api.absolute.com
3  Content-Type: application/json
4  X-Abs-Date: 20220808T175758Z
5  Authorization: ABS1-HMAC-SHA-256 Credential=5a9c1a74-40fe-4f9f-a77a-
   9a76ac749e3f/20220808/cadc/abs1, SignedHeaders=host;content-type;x-abs-date,
   Signature=acc70630dbc32131adcd873a6a20ffef7e7a6a8a848a03f5eb2aa89f3b575e95

```

Response**Example 3 Response body**

```

1  [
2    {
3      "deviceAppId": null,
4      "deviceId": null,
5      "accountUid": null,
6      "appId": null,
7      "appName": "Slack",

```

Example 3 Response body

```
8      "appPublisher": null,
9      "appOriginalPublisher": null,
10     "appVersion": null,
11     "esn": "2BU2PJD28VAA1UYL0008",
12     "deviceName": null,
13     "deviceSerialNumber": null,
14     "userName": null,
15     "installPath": null,
16     "installDate": null,
17     "firstDetectUtc": null,
18     "osName": null,
19     "lastScanTimeUtc": null
20   },
21   {
22     "deviceAppId": null,
23     "deviceUid": null,
24     "accountUid": null,
25     "appId": null,
26     "appName": "Slack",
27     "appPublisher": null,
28     "appOriginalPublisher": null,
29     "appVersion": null,
30     "esn": "2BU2PJD28VAA1UYL0012",
31     "deviceName": null,
32     "deviceSerialNumber": null,
33     "userName": null,
34     "installPath": null,
35     "installDate": null,
36     "firstDetectUtc": null,
37     "osName": null,
38     "lastScanTimeUtc": null
39   }
40 ]
```

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**Example 4 Request header**

```
1 GET
  https://api.absolute.com/v2/sw/deviceapplications?%24filter=appName%20eq%20%27Slack%27
  &%24select=esn%2CappName%24top=2
2 Host: api.absolute.com
3 Content-Type: application/json
4 X-Abs-Date: 20220808T183336Z
5 Authorization: ABS1-HMAC-SHA-256 Credential=5a9c1a74-40fe-4f9f-a77a-
  9a76ac749e3f/20220808/cadc/abs1, SignedHeaders=host;content-type;x-abs-date,
```

Example 4 Request header

Signature=82281b0b02b6c84f28ef0f1b9c60ac92b4fbc6827d9602bcce3ba0939feaf09b

Response**Example 4 Response body**

```
1  [
2    {
3      "deviceAppId": "5d8a714ae55de031eaeafa08a",
4      "deviceUid": "56be8d1f-2eb8-4e9b-bbd6-1aab032abcde",
5      "accountUid": "e7a9fb73-44b0-4f5d-990b-39ff884425eb",
6      "appId": "5d8a714ae55de031eaeafa042",
7      "appName": "3D Viewer",
8      "appPublisher": "Microsoft Corporation",
9      "appOriginalPublisher": "Microsoft Corporation",
10     "appVersion": "6.1903.4012.0",
11     "esn": "2BU2PJD28VAA1UYL0008",
12     "deviceName": "LPTP_TJordan",
13     "deviceSerialNumber": "CNF83051BN",
14     "userName": "LPTP_TJordan\\tjordan",
15     "installPath": "C:\\Program Files\\WindowsApps\\Microsoft.Print3D_3.3.791.0_
x64__8wekyb3d8bbwe",
16     "installDate": 1551848063866,
17     "firstDetectUtc": 1610836455117,
18     "osName": "Windows 10 (64 bit)",
19     "lastScanTimeUtc": 1610836455117
20   },
21   {
22     "deviceAppId": "5d14f12fb511a6000ad2c458",
23     "deviceUid": "56be8d1f-2eb8-4e9b-bbd6-1aab032abcde",
24     "accountUid": "e7a9fb73-44b0-4f5d-990b-39ff884425eb",
25     "appId": "5d14f12fb511a6000ad2c308",
26     "appName": "People",
27     "appPublisher": "Microsoft Corporation",
28     "appOriginalPublisher": "Microsoft Corporation",
29     "appVersion": "10.1909.10841.0",
30     "esn": "2BU2PJD28VAA1UYL0008",
31     "deviceName": "LPTP_TJordan",
32     "deviceSerialNumber": "CNF83051BN",
33     "installPath": "C:\\Program Files\\WindowsApps\\Microsoft.People_
10.1909.10841.0_x64__8wekyb3d8bbwe",
34     "userName": "LPTP_TJordan\\tjordan",
35     "firstDetectUtc": 1610836455117,
36     "osName": "Windows 10 (64 bit)",
37     "lastScanTimeUtc": 1610836455117
38   }
39 ]
```

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.
	\$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).