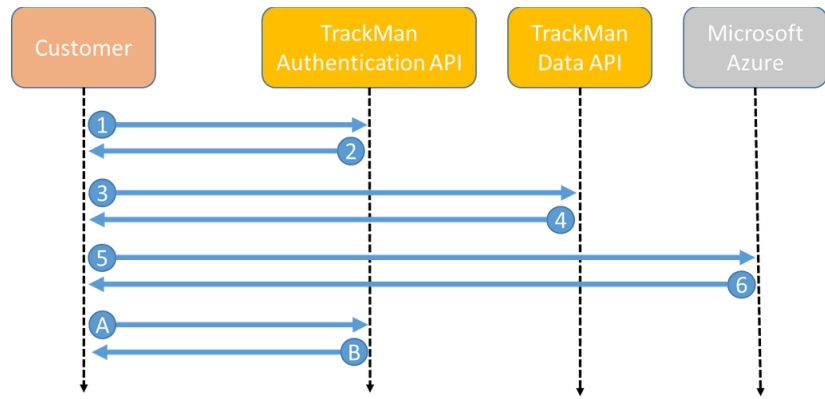


# TrackMan Baseball API Quick Start Guide for Customers

This document will serve as the primary technical documentation on how to get started with the TrackMan Baseball Data API.

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# Overview



- 1 Request OAuth token by client Id, client secret, username and password
- 2 Receive the OAuth token
- 3 Request data and metadata for a given game or practice session and SAS token for access to images and videos
- 4 Receive the data and metadata and SAS tokens
- 5 Request the images and videos for a given game or practice session
- 6 Receive the images and videos
- A When the Oauth token expires then request a new
- B Receive a new valid Oauth token

## Prerequisites

- For you to be able to communicate with TrackMan Data API you will need to have an OAuth 2.0 Bearer Token

This Part has Been deprecated please check the bullets below

- In order to obtain a OAuth 2.0 Bearer Token you will need to have a set of secrets
  - Client Id
  - Client Secret
  - Username
  - Password
- Apply for a set of secrets by contacting your TrackMan sales rep or when in doubt contact Trackman Baseball support
- In order to obtain a OAuth 2.0 Bearer Token you will need to have a set of credentials will be provided by TrackMan:
  - Client Id
  - Client Secret
- Apply for a set of credentials by contacting your TrackMan sales rep or when in doubt contact Trackman Baseball support

## Environments

- Production – use this for accessing data from your production systems
  - <https://login.trackmanbaseball.com/connect/token>
  - Swagger UI

## Endpoints

The following table shows which data types is coming from which endpoint.

Endpoint Type	Endpoint URL
---------------	--------------



```

uSIsVaaK13k7c72UaqqDg6BJuHR9Q7KvgpvxQ97OhnBGxvCCYbJC1kwtmFNSngTa34bFmwgZDbfJ1GCp77P6bX_h6FlgXqnJocLiF00FhVRdiskC
6vCMQTK4H8ScmHzzhHcb8tzWmDy5P3ODIgilBTcPkHdLXmP_1TvEJWCgkI29zfDEIly-z706xxg",
3     "expires_in": 3600,
4     "token_type": "Bearer",
5     "refresh_token": "ACF307E3501C83E23BB72CC93D4CDFAFCA0AE07F758C283CB85101BBA091B40D"
6 }

```

- The value of the attribute "access\_token" must be passed along with all API requests in order for them to be accepted.
- The value of the attribute "refresh\_token" must be used to obtain a new access token after the expiration of the current one.

## Unsuccessful response

In case of authentication failure, a 400 response will be returned with a body like this:

```

1 {"error": "invalid_grant", "error_description": "invalid_username_or_password"}

```

## Renew OAuth token

### Request

Access tokens are issued with a lifetime of one hour, which means they should be renewed with that frequency. In order to do so, it's not necessary to provide the user's credentials, only the client credentials and the refresh token are required.

The following request template can be used to have a new access token issued:

```

1 curl --location --request POST 'https://login.trackmanbaseball.com/connect/token'
2 --header 'Content-Type:application/x-www-form-urlencoded'
3 --data-urlencode 'client_id=<client_id>'--data-urlencode 'client_secret=<client_secret>'
4 --data-urlencode 'grant_type=refresh_token'--data-urlencode 'refresh_token=<refresh_token>'

```

The response will have the identical format as when obtaining the original token.

## Discovering of sessions

### Game Sessions

In order to query for stadium/backfield game sessions the following request template should be used:

```

1 curl -X POST "https://dataapi.trackmanbaseball.com/api/v1/discovery/game/sessions"
2 -H "accept: text/plain"
3 -H "Content-Type: application/json-patch+json"
4 -d '{"sessionType": "All", "utcDateFrom": "2021-01-01T08:51:06.785Z", "utcDateTo": "2021-01-02T08:51:06.785Z"}'

```

- The SessionType parameter must be All, Standard, Adhoc, or BattingPractice.
- The utcDateFrom and utcDateTo parameters cannot span more the 30 consecutive dates.
- FieldShortName and FieldId are optional parameters that can help discover data from a specific field.

The response will be an array of high-level session metadata that can be used to determine which sessions are relevant. The response also includes the session identifier which must be used as a key in later queries.

```

1 [
2   {
3     "version": "1.1.0",
4     "sessionId": "73bf2768-3f3e-47b5-a1c3-01aee819b981", "gameDateUtc": "2020-06-11T09:23:03.389Z",

```

```

5   "externalSessionId": "1000109812", "gameDateLocal": "2020-06-11T09:23:03.3899517Z", "sessionType":
"Standard", "verified": true,
6   "location": { field": { "name": "RELEASE APP TEST FIELD", "shortName": "RELEASE APP TEST FIELD" },
"venue": { "name": "RELEASE TRACKMAN HQ" } },
7   "level": { "id": "b551ce69-3b6a-49e7-b7fa-5420d66f1bd6", "name": "D1" },
8   "league": { "id": "0b04bbcb-e7c9-4318-a53e-7ee9d280f6b8", "name": "American League", "shortName": "AL" },
9   "homeTeam": { "name": "Pioneer Athletic Conference HS All Stars", "shortName": "PIO_ATH" },
10  "awayTeam": { "name": "Rutgers Scarlet Knights", "shortName": "RUT_SCA" }
11  }
12 ]

```

## Practice sessions

In order to query for practice sessions the following request template should be used:

```

1 curl -X POST "https://dataapi.trackmanbaseball.com/api/v1/discovery/practice/sessions"
2 -H "accept: text/plain"
3 -H "Content-Type: application/json-patch+json"
4 -d '{"sessionType": "All", "utcDateFrom": "2021-01-01T08:51:06.785Z", "utcDateTo": "2021-01-
02T08:51:06.785Z"}'

```

- The utcDateFrom and utcDateTo parameters cannot span more the 30 consecutive dates.
- The SessionType parameter must be All, Pitching, or Hitting.

The response will be an array of high-level session metadata that can be used to determine which sessions are relevant. The response also includes the session identifier which must be used as a key in later queries.

```

1 [
2   {
3     "version": "1.1.0",
4     "sessionId": "73bf2768-3f3e-47b5-a1c3-01aee819b981",
5     "externalSessionId": "11739",
6     "gameDateUtc": "2020-06-11T09:23:03.389Z",
7     "gameDateLocal": "2020-06-11T09:23:03.3899517Z",
8     "sessionType": "Pitching"
9   }
10 ]

```

## Query for Data

### Single Game session

Assuming the session identifier is known the following request should be used in order to get access to the data for a single session.

```

1 curl --location --request GET
  'https://dataapi.trackmanbaseball.com/api/v1/data/game/session/<session_identifier>' \
2 --header 'Authorization: Bearer <access_token>'

```

The response will contain high-level session metadata. The response also includes the session identifier which must be used as a key in later queries.

```

1 {
2   "version": "1.1.0",
3   "sessionId": "73bf2768-3f3e-47b5-a1c3-01aee819b981", "gameDateUtc": "2020-06-11T09:23:03.389Z",
4   "externalSessionId": "1000109812", "gameDateLocal": "2020-06-11T09:23:03.3899517Z", "sessionType":
"Standard", "verified": true,

```

```

5     "location": { field": { "name": "RELEASE APP TEST FIELD", "shortName": "RELEASE APP TEST FIELD" },
"venue": { "name": "RELEASE TRACKMAN HQ" } },
6     "level": { "id": "b551ce69-3b6a-49e7-b7fa-5420d66f1bd6", "name": "D1" },
7     "league": { "id": "0b04bbcb-e7c9-4318-a53e-7ee9d280f6b8", "name": "American League", "shortName": "AL" },
8     "homeTeam": { "name": "Pioneer Athletic Conference HS All Stars", "shortName": "PIO_ATH" },
9     "awayTeam": { "name": "Rutgers Scarlet Knights", "shortName": "RUT_SCA" }
10  }

```

## Game Ball data

Assuming the session identifier is known the following request should be used in order to get access to ball data from a stadium/backfield system.

```

1  curl --location --request GET
    'https://dataapi.trackmanbaseball.com/api/v1/data/game/balls/<session_identifier>' \
2  --header 'Authorization: Bearer <access_token>'

```

The response will be a list of balls that was tracked during a session. They can be of the Kind Pitch, Hit, or CatcherThrow.

## Pitch

```

1  {
2    "version": "1.0.0",
3    "playId": " 2c708258-c64c-4088-800e-7ed2d7be6b14 ",
4    "trackId": " f1f760ae-912e-4b73-8dde-683289da44fb ",
5    "trackStartTime": "2022-06-23T01:22:31.46373Z",
6    "kind": "Pitch",
7    "pitch": {
8      "release": {
9        "relSpeed": 66.62449,
10       "spinRate": 1668.8065,
11       "extension": 4.12049,
12       "vertRelAngle": 2.120296,
13       "horzRelAngle": -1.713926,
14       "relHeight": 5.33996,
15       "relSide": 1.78252,
16       "confidence": "High"
17     },
18     "movement": {
19       "horzBreak": 13.60276,
20       "vertBreak": -50.452,
21       "inducedVertBreak": 17.86666,
22       "spinAxis": 221.47131,
23       "tilt": "1:30",
24       "confidence": "High"
25     },
26     "location": {
27       "zoneTime": 0.594896,
28       "plateLocHeight": 3.17171,
29       "plateLocSide": 1.27122,
30       "zoneSpeed": 60.20963,
31       "vertApprAngle": -7.024784,
32       "horzApprAngle": 0.646302,
33       "confidence": "High"
34     },
35     "nineP": {
36       "x0": {

```

```

37     "x": -1.60706,
38     "y": 50,
39     "z": 5.52438
40   },
41   "v0": {
42     "x": 2.34667,
43     "y": -96.2137,
44     "z": 1.95306
45   },
46   "a0": {
47     "x": -6.49054,
48     "y": 16.59358,
49     "z": -24.20551
50   },
51   "pfx": -7.00796,
52   "pfz": 8.60378
53 },
54 "speedDrop": 6.41486,
55 "flight": {
56   "polyFit": {
57     "pitchTrajectory": {
58       "x": [
59         56.37322,
60         -97.30665,
61         8.29679
62       ],
63       "y": [
64         5.34323,
65         3.54739,
66         -12.10275
67       ],
68       "z": [
69         -1.77571,
70         2.77417,
71         -3.24527
72       ]
73     }
74   }
75 },
76 "effectiveVelo": 63.3597
77 }
78 }

```

### Pitch with optional 3D Spin data

```

1   {
2     "version": "1.0.0",
3     "playId": "2ef29cf5-bb63-4363-a401-1b0c5f45d9d7",
4     "trackId": "826cba44-a36e-4cbf-8fa7-377d59aed70e",
5     "trackStartTime": "2023-02-01T11:28:37.424288Z",
6     "kind": "Pitch",
7     "pitch": {
8       "release": {
9         "relSpeed": 87.64325,
10        "spinRate": 2302.5894,
11        "extension": 5.58866,
12        "vertRelAngle": -0.667521,
13        "horzRelAngle": -1.687572,

```

```
14     "relHeight": 6.58002,
15     "relSide": 1.4329,
16     "confidence": "High",
17     "spinAxis3dTilt": "1:10",
18     "spinAxis3dActiveSpinRate": 34.2,
19     "spinAxis3dSpinEfficiency": 2.3,
20     "spinAxis3dTransverseAngle": 3.2,
21     "spinAxis3dLongitudinalAngle": 2.3,
22     "spinAxis3dVector": {
23         "x": 3.3,
24         "y": 6.7,
25         "z": 5.6
26     },
27     "spinAxis3dSeamOrientation": {
28         "x": 3.3,
29         "y": 3.4,
30         "z": 1.2
31     }
32 },
33 "movement": {
34     "horzBreak": 9.51953,
35     "vertBreak": -20.07958,
36     "inducedVertBreak": 17.05891,
37     "spinAxis": 211.12204,
38     "tilt": "1:00",
39     "confidence": "High"
40 },
41 "location": {
42     "zoneTime": 0.438615,
43     "plateLocHeight": 4.28312,
44     "plateLocSide": 0.64995,
45     "zoneSpeed": 79.29391,
46     "vertApprAngle": -4.466146,
47     "horzApprAngle": 0.010695,
48     "confidence": "High"
49 },
50 "nineP": {
51     "x0": {
52         "x": -1.29421,
53         "y": 50,
54         "z": 6.50992
55     },
56     "v0": {
57         "x": 3.32173,
58         "y": -127.06525,
59         "z": -2.10494
60     },
61     "a0": {
62         "x": -8.57379,
63         "y": 28.32985,
64         "z": -17.28319
65     },
66     "pfx": {
67         "x": -5.29418,
68         "y": 9.19485
69     },
70     "speedDrop": 8.34933,
71     "flight": {
72         "polyFit": {
```



```

72     "pitchTrajectory": {
73       "x": [
74         54.90563,
75         -128.15433,
76         14.16492
77       ],
78       "y": [
79         6.57807,
80         -1.44053,
81         -8.64159
82       ],
83       "z": [
84         -1.42824,
85         3.65133,
86         -4.28689
87       ]
88     }
89   },
90   "effectiveVelo": 85.93512
91 }
92 }
93 }

```

## Hit

```

1  {
2    "version": "1.0.0",
3    "playId": "67adbc19-94ac-4e34-a7cd-6b3c02014488",
4    "trackId": "bcfafc04-0a7f-47d4-9097-edf16665a0f1",
5    "trackStartTime": "2022-06-24T00:38:59.5505524Z",
6    "kind": "Hit",
7    "hit": {
8      "launch": {
9        "exitSpeed": 58.01331,
10       "contactPosition": {
11         "x": 3.86051,
12         "y": 2.87963,
13         "z": 0.52791
14       },
15       "angle": -29.79936,
16       "direction": -51.505203,
17       "confidence": "Estimated"
18     },
19     "landingFlat": {
20       "distance": 7.77661,
21       "bearing": -25.987608,
22       "hangTime": 0.067687,
23       "confidence": "Estimated"
24     },
25     "maxHeight": 2.87963,
26     "flight": {
27       "polyFit": {
28         "hitTrajectory": {
29           "x": [
30             3.85744,
31             46.23927
32           ],
33           "y": [

```

```

34         2.88245,
35         -42.54328
36     ],
37     "z": [
38         0.53176,
39         -58.14156
40     ]
41 }
42 }
43 }
44 }
45 }

```

## CatcherThrow

```

1  {
2    "version": "1.0.0",
3    "playId": "329f060a-c7c8-4e25-ab04-e7788a8f70a2",
4    "trackId": "976aca06-edc1-4747-a83c-3483599b4cc3",
5    "trackStartTime": "2022-06-24T00:37:27.4377076Z",
6    "kind": "CatcherThrow",
7    "catcherThrow": {
8      "throw": {
9        "throwSpeed": 69.02929,
10       "throwPosition": {
11         "x": 2.39971,
12         "y": 5.60062,
13         "z": 0.56486
14       }
15     },
16     "location": {
17       "timeToBase": 1.421069,
18       "basePosition": {
19         "x": 127.28915,
20         "y": 6.79757,
21         "z": 5.38891
22       },
23       "confidence": "High"
24     },
25     "flight": {
26       "polyFit": {
27         "throwTrajectory": {
28           "x": [
29             2.61444,
30             97.26313,
31             -6.67348
32           ],
33           "y": [
34             5.71672,
35             20.32265,
36             -13.74447
37           ],
38           "z": [
39             0.46383,
40             0.4191,
41             2.12863
42           ]
43         }

```

```
44     }
45     }
46     }
47     }
```

## Game Plays

Assuming the session identifier is known the following request should be used in order to get access to Plays tagged from a stadium/backfield.

```
1 curl --location --request GET
  'https://dataapi.trackmanbaseball.com/api/v1/data/game/plays/<session_identifier>' \
2 --header 'Authorization: Bearer <access_token>
```

The response will be an array of Play objects that were tracked during a session:

```
1 [
2   {
3     "version": "1.0.0",
4     "pitchUID": " 9a5ad943-0ce7-4ace-a44d-45110282a9f6 ",
5     "playID": " 12c4c3f5-9984-47a0-8e7c-d8724d04e463 ",
6     "localDateTime": "06/23/2022 01:44:24",
7     "utcDateTime": "06/23/2022 01:44:24",
8     "taggerBehavior": {
9       "pitchNo": 23,
10      "pAofinning": 14,
11      "pitchofPA": 1
12    },
13    "pitcher": {
14      "name": "Test, Test",
15      "id": "555555",
16      "throws": "Right",
17      "team": "QRT_AAX"
18    },
19    "batter": {
20      "name": "Test2, Test2",
21      "id": "444444",
22      "side": "Right",
23      "team": "ITZ_BAT"
24    },
25    "catcher": {
26      "name": "Test3, Test3",
27      "id": "544333",
28      "throws": "Left",
29      "team": " QRT_AAX "
30    },
31    "gameState": {
32      "inning": 1,
33      "topBottom": "Bottom",
34      "outs": 1,
35      "balls": 0,
36      "strikes": 0
37    },
38    "pitchTag": {
39      "taggedPitchType": "Sinker",
40      "pitchCall": "BallCalled",
41      "autoPitchType": "Changeup"
42    },
```

```

43   "hitTag": {
44     "taggedHitType": "Undefined"
45   },
46   "korBB": "Undefined",
47   "playResult": {
48     "playResult": "Undefined",
49     "outsOnPlay": 0,
50     "runsScored": 0
51   },
52   "notes": ""
53 }
54 ]

```

## Practice Ball Data

Assuming the session identifier is known the following request should be used in order to get access to ball data during a practice session.

```

1  curl --location --request GET
   'https://dataapi.trackmanbaseball.com/api/v1/data/practice/balls/<session_identifier>' \
2  --header 'Authorization: Bearer <access_token>'

```

The response will be an array of Ball objects that will be of the types Hit or Pitch:

### Hit

```

1  {
2    "version": "1.0.0",
3    "trackType": "Hit",
4    "hit": {
5      "hitUID": "3981afefba1b43f280416e6412dc3001",
6      "launch": {
7        "exitSpeed": 45.0007,
8        "angle": 49.0816,
9        "direction": 30.903046,
10       "spinRate": 4134.891,
11       "contactPosition": {
12         "x": 0.77241,
13         "y": 2.88684,
14         "z": 0.67732
15       }
16     },
17     "trajectory": {},
18     "lastTrackedDistance": 10.13543,
19     "landing": {
20       "hangTime": 3.2149227,
21       "distance": 113.46929,
22       "bearing": 34.160698
23     }
24   }
25 }

```

### Pitch

```

1  {
2    "version": "1.0.0",
3    "trackType": "Pitch",

```

```
4 "pitch": {
5   "pitchUID": "f4b91ef6-9622-45fe-ae92-3fb8ea32d95f",
6   "release": {
7     "relSpeed": 90.45952
8     "vertRelAngle": 1.1750124,
9     "horzRelAngle": 1.0159225,
10    "spinRate": 1989.2959,
11    "spinAxis": 72.78744,
12    "tilt": "8:30",
13    "relHeight": 4.99262,
14    "relSide": 1.83446,
15    "extension": 6.45952
16    "spinAxis3dTilt": "2:30",
17    "spinAxis3dTransverseAngle": 233.11022,
18    "spinAxis3dLongitudinalAngle": 15.892031,
19    "spinAxis3dActiveSpinRate": 1249.8821,
20    "spinAxis3dSpinEfficiency": 0.9277325,
21    "spinAxis3dVector": {
22      "x": -0.36022058,
23      "y": -0.9413322,
24      "z": -0.23355447
25    }
26  },
27  "trajectory": {
28    "vertBreak": -60.423,
29    "inducedVertBreak": -2.45709,
30    "horzBreak": -7.76583
31  },
32  "location": {
33    "plateLocHeight": 1.03686,
34    "plateLocSide": 2.12047,
35    "zoneSpeed": 63.23535,
36    "vertApprAngle": -10.251426,
37    "horzApprAngle": -0.4668674,
38    "zoneTime": 0.54797125
39  },
40  "pfxData": {
41    "pfxX": 4.59049,
42    "pfxZ": -1.71027,
43    "a0": {
44      "x": 4.61916,
45      "y": 17.40995,
46      "z": -33.895
47    },
48    "v0": {
49      "x": -1.60178,
50      "y": -100.10154,
51      "z": 0.70491
52    },
53    "x0": {
54      "x": -1.90261,
55      "y": 50,
56      "z": 5.04836
57    }
58  },
59  "effVelocity": 68.78544
60 }
61 }
```

## Practice Play Data

Assuming the session identifier is known the following request should be used in order to get access to Plays tagged during a practice session.

```
1 curl --location --request GET
  'https://dataapi.trackmanbaseball.com/api/v1/data/practice/plays/<session_identifier>' \
2 --header 'Authorization: Bearer <access_token>
```

The response will be an array of Play objects that were tracked during a session:

```
1 {
2   "version": "1.0.0",
3   "playID": "a744659f-46fd-4703-aa8c-f635e54d3221",
4   "calibrationId": "74740447-e745-4100-86b0-2e7376f56623",
5   "date": "2023-02-06",
6   "time": "00:56:00.92",
7   "pitcher": {
8     "pitcher": "Cline, Cyrus",
9     "pitcherId": "401485",
10    "pitcherThrows": "Right"
11  },
12  "batter": {},
13  "pitchTag": {
14    "taggedPitchType": "Fastball"
15  },
16  "taggerBehavior": {
17    "pitchNo": 66,
18    "pitchSession": "Live"
19  }
20 }
```

## Query for access to Media

### Images

Assuming the session identifier is known the following request should be used in order to get access to composite images and player positioning images from a stadium/backfield system.

```
1 curl --location --request GET
  'https://dataapi.trackmanbaseball.com/api/v1/media/game/imagetokens/<session_identifier>' \
2 --header 'Authorization: Bearer <access_token>
```

The response will be a list of SAS tokens needed to access the images sitting with Microsoft Azure. See slides on “Downloading images or videos” for examples on how to interact with Microsoft Azure using the below “tokens”, “entityPath” and “endpoint”.

```
1 [
2   {
3     "version": "1.0.0",
4     "type": "CompositeImages",
5     "token": "?sv=2018-03-28&sr=c&sig=VBd9CU1jTkASsHiipRe4wNs0%2FIbQU1Jqe6MN4RcTv%2BM%3D&se=2021-04-14T12%3A39%3A49Z&sp=r1",
6     "entityPath": "tmbbdataaapicpimagesprod",
7     "endpoint": "2a2e739b-1955-41b7-81de-bd292b035e54",
8     "expiresAtUtc": "2021-04-14T12:39:49.343842Z"
9   },
10  ]
```

```

11     "version": "1.0.0",
12     "type": "PlayerPositioningImages",
13     "token": "?sv=2018-03-28&sr=c&sig=7jUcTZZaKtOu59DMfG2edVVxoG1g4UmI7%2FjFj9EQvWw%3D&se=2021-04-
14T12%3A39%3A49Z&sp=r1",
15     "entityPath": "tmbbdataaapippimagesprod",
16     "endpoint": "2a2e739b-1955-41b7-81de-bd292b035e54",
17     "expiresAtUtc": "2021-04-14T12:39:49.7341683Z"
18 }
19 ]

```

## Videos

### Practice

Assuming the session identifier is known the following request should be used in order to get access to Edgertronic or iPhone videos from practice sessions:

```

1 curl --location --request GET
2 'https://dataapi.trackmanbaseball.com/api/v1/media/practice/videotokens/<session_identifier>' \
3 --header 'Authorization: Bearer <access_token>'

```

The response will be a list of SAS tokens needed to access the videos sitting with Microsoft Azure. See slides on “Downloading images or videos” for examples on how to interact with Microsoft Azure using the below “tokens”, “entityPath” and “endpoint”.

```

1 [
2   {
3     "version": "1.1.0",
4     "type": "iPhoneVideos",
5     "token": "?sv=2018-03-28&sr=c&sig=VTzCPKGaWN2zyLgX1R%2F4Bqr4h0747ktfbYGWCONEZoM%3D&se=2020-12-
611T15%3A24%3A31Z&sp=r1",
7     "entityPath": "tmbbdataaapiipvideosprod",
8     "endpoint": "572bde50-0e50-4d28-8ab3-e475ae51d7ch",
9     "expiresAtUtc": "2021-06-18T11:35:15.197Z"
10  },
11  {
12     "version": "1.1.0",
13     "type": "EdgertronicVideos",
14     "token": "?sv=2018-03-28&sr=c&sig=VTzCPKGaWN2zyLgX1R%2F4Bqr4h0747ktfbYGWCONEZoM%3D&se=2020-12-
1511T15%3A24%3A31Z&sp=r1",
16     "entityPath": "tmbbdataaapiiedvideosprod",
17     "endpoint": "028bde50-0e40-4c28-8ab3-e475ae51d7bd",
18     "expiresAtUtc": "2021-06-18T11:35:15.197Z"
19  },
20  {
21     "version": "1.1.0",
22     "type": "PlayVideos",
23     "token": "?sv=2018-03-28&sr=c&sig=O4WGEIevvd3vKOB7UDfJ4DZXEBR11Hzvuk47GIjWIKI%3D&se=2021-08-
2425T07%3A58%3A09Z&sp=r1",
25     "entityPath": "tmbbdataaapipvvideosprod",
26     "endpoint": "2502cd67-fd3b-47b9-9cc0-14535f21598a",
27     "expiresAtUtc": "2021-08-25T07:58:09.3418109Z"
28  }
29 ]

```

Sample response for a video with the metric overlay :

```

1 {
2   "version": "1.1.0",
3   "videoClipId": SID,
4   "sessionId": SESSIONID,
5   "playId": PLAYID,
6   "createdAt": "2024-06-10T08:40:04.752824Z",
7   "updatedAt": "2024-06-10T08:40:04.752824Z",
8   "height": 480,
9   "width": 640,
10  "framerate": 200,
11  "shutterSpeed": 2000.0,
12  "releasePointFrame": 40,
13  "videoDurationInSeconds": 0.8,
14  "cameraName": "Edgertronic",
15  "cameraType": "Edgertronic",
16  "overlayDetails": {
17    "name": "org#1hit",
18    "id": Trackman_hitting,
19    "originalClipId": ID
20  }
21 }

```

## Game

The following request should be used to fetch PlayVideos from game sessions:

```

1 curl --location --request GET
   'https://dataapi.trackmanbaseball.com/api/v1/media/game/videotokens/<session_identifier>' \
2 --header 'Authorization: Bearer <access_token>'
3

```

The response will be a list of SAS tokens needed to access the videos sitting with Microsoft Azure. See slides on “Downloading images or videos” for examples on how to interact with Microsoft Azure using the below “tokens”, “entityPath” and “endpoint”.

```

1 [
2   {
3     "version": "1.1.0",
4     "type": "PlayVideos",
5     "token": "?sv=2018-03-28&sr=c&sig=04WGEIevvd3vKOB7UDfJ4DZXEBR11Hzzvuk47GIjWIKE%3D&se=2021-08-
25T07%3A58%3A09Z&sp=rl",
6     "entityPath": "tmbbdataaapipvvideosprod",
7     "endpoint": "2502cd67-fd3b-47b9-9cc0-14535f21598a",
8     "expiresAtUtc": "2021-08-25T07:58:09.3418109Z"
9   },
10  {
11    "version": "1.1.0",
12    "type": "CenterFieldVideos",
13    "token": "?sv=2018-03-28&sr=c&sig=04WGEIevvd3vKOB7UDfJ4DZXEBR11Hzzvuk47GIjWIKE%3D&se=2021-08-
25T07%3A58%3A09Z&sp=rl",
14    "entityPath": "tmbbdataaapipvvideosprod",
15    "endpoint": "2502cd67-fd3b-47b9-9cc0-14535f21598a",
16    "expiresAtUtc": "2021-08-25T07:58:09.3418109Z"
17  },
18  {
19    "version": "1.1.0",
20    "type": "HighHomeVideos",
21    "token": "?sv=2018-03-28&sr=c&sig=04WGEIevvd3vKOB7UDfJ4DZXEBR11Hzzvuk47GIjWIKE%3D&se=2021-08-
25T07%3A58%3A09Z&sp=rl",

```



```

22     "entityPath": "tmbbdataaapipvideosprod",
23     "endpoint": "2502cd67-fd3b-47b9-9cc0-14535f21598a",
24     "expiresAtUtc": "2021-08-25T07:58:09.3418109Z"
25 },
26 {
27     "version": "1.1.0",
28     "type": "Pitcher1BVideos",
29     "token": "?sv=2018-03-28&sr=c&sig=04WGEIevvd3vKOB7UDfJ4DZXEBR11Hzvuk47GIjWIKE%3D&se=2021-08-
25T07%3A58%3A09Z&sp=r1",
30     "entityPath": "tmbbdataaapipvideosprod",
31     "endpoint": "2502cd67-fd3b-47b9-9cc0-14535f21598a",
32     "expiresAtUtc": "2021-08-25T07:58:09.3418109Z"
33 },
34 {
35     "version": "1.1.0",
36     "type": "Pitcher3BVideos",
37     "token": "?sv=2018-03-28&sr=c&sig=04WGEIevvd3vKOB7UDfJ4DZXEBR11Hzvuk47GIjWIKE%3D&se=2021-08-
25T07%3A58%3A09Z&sp=r1",
38     "entityPath": "tmbbdataaapipvideosprod",
39     "endpoint": "2502cd67-fd3b-47b9-9cc0-14535f21598a",
40     "expiresAtUtc": "2021-08-25T07:58:09.3418109Z"
41 },
42 {
43     "version": "1.1.0",
44     "type": "Batter1BVideos",
45     "token": "?sv=2018-03-28&sr=c&sig=04WGEIevvd3vKOB7UDfJ4DZXEBR11Hzvuk47GIjWIKE%3D&se=2021-08-
25T07%3A58%3A09Z&sp=r1",
46     "entityPath": "tmbbdataaapipvideosprod",
47     "endpoint": "2502cd67-fd3b-47b9-9cc0-14535f21598a",
48     "expiresAtUtc": "2021-08-25T07:58:09.3418109Z"
49 },
50 {
51     "version": "1.1.0",
52     "type": "Batter3BVideos",
53     "token": "?sv=2018-03-28&sr=c&sig=04WGEIevvd3vKOB7UDfJ4DZXEBR11Hzvuk47GIjWIKE%3D&se=2021-08-
25T07%3A58%3A09Z&sp=r1",
54     "entityPath": "tmbbdataaapipvideosprod",
55     "endpoint": "2502cd67-fd3b-47b9-9cc0-14535f21598a",
56     "expiresAtUtc": "2021-08-25T07:58:09.3418109Z"
57 },
58 ]

```

## Metadata

### Practice

Assuming the session identifier is known the following request should be used in order to get access to metadata for Edgertronic or iPhone videos from practice sessions:

```

1 curl --location --request GET
  'https://dataapi.trackmanbaseball.com/api/v1/media/practice/videometadata/<session_identifier>' \
2 --header 'Authorization: Bearer <access_token>'
3

```

The response will be an array of Json VideoMetadata objects:

```

1 [

```

```

2  {
3    "version": "1.0.0",
4    "videoClipId": "04d71b29-a118-4bf9-abc4-3751669134d6",
5    "sessionId": "c9611503-6bdc-4bf9-9197-b881d8ee0644",
6    "playId": "55d733d4-b712-2354-ae64-51d86b0b5305",
7    "createdAt": "2024-01-05T18:02:28.683068Z",
8    "updatedAt": "2024-01-05T18:02:28.683068Z",
9    "height": 720,
10   "width": 1280,
11   "framerate": 600,
12   "shutterSpeed": 2000,
13   "releasePointFrame": 60,
14   "videoDurationInSeconds": 0.25,
15   "cameraName": "Edgertronic",
16   "cameraType": "Edgertronic",
17   "cameraTarget": "PitchersBack",
18   "adjustedReleasePointFrame": 93"
19   "overlayDetails": {
20     "name": "org#1hit",
21     "id": "4ac6c068-5778-4eb7-bc10-f5c6aafe1fe0",
22     "originalClipId": "4557d223-9583-418a-b879-560baebd1542"
23   }
24 }
25 ]

```

## Downloading Media

- Each container in the Microsoft Azure storage account equals a V3 game or B1 session.
- The container is named after the session identifier (GUID).
- Each image container has this sub-structure: `/Plays/{PlayId}/{Type}/{UnitSystem}`.
  - Plays is a constant string.
  - PlayId is a GUID.
  - Type is an enum of types [ Unknown, PitchCompositeImage, HitCompositeImage, PitchReleasePlayerPositioningImage ].
  - UnitSystem is an enum of types [ Unknown, Imperial, Metric ].
    - Only present if the image has data overlay
- Each video container has this sub-structure: `/Plays/{PlayId}/{VideoType}/{UnitSystem}`.
  - Plays is a constant string.
  - PlayId is a GUID.
  - VideoType is an enum of types [ Unknown, Edgertronic, iPhone, PTU ].
  - UnitSystem is an enum of types [ Unknown, Imperial, Metric ].
    - Only present if the video has data overlay

## Using Azure API

The general template for listing the resources inside the container is:

```
1 curl https://<entityPath>.blob.core.windows.net/<endpoint>/<token>&comp=list&restype=container
```

- `<token>`, `<entityPath>` and `<endpoint>` correspond to the attributes of the response from TrackMan Data API.

This will return a list of blobs. In order to download the individual blob point to the resource's URL and append the SAS token

```
1 curl https://<entityPath>.blob.core.windows.net/<endpoint>/<blobname><token>
```

## Using Azure SDK

The following code (C#) shows how to list the resources on a given container with a valid SAS token. The nuget package `Azure.Storage.Blobs` (v 12.4 or above) will be needed in order to run this code.

```
1 public void ListResources(){
2     var blobServiceClient = new BlobServiceClient(new
Uri($"https://<entityPath>.blob.core.windows.net/<token>"));
3     var client = blobServiceClient.GetBlobContainerClient(<endpoint>);
4     foreach (var blobItem in client.GetBlobs(BlobTraits.None, BlobStates.None))
5     {
6         Console.WriteLine(blobItem.Name);
7     }
8 }
9 }
```

Once the file names are known, they can be downloaded using `HttpClient` in .NET or the equivalent in the programming language of your choice.

## IP address whitelist

As an optional extra security measure TrackMan can limit which IP addresses the requests towards the Data API are allowed to originate from.

## Change Log

v2.1 – Added section 8.3 Metadata and 8.31 Practice

- This section covers instructions on how to query for Video metadata from Practice sessions as well as a sample JSON response.

v2.5 – Added the following:

- Section 9.2, updated with sample JSON response for Practice videos with metric overlay
- Section 9.2.2 updated with sample JSON response if V3 External Video clips are available for desired game session.
- Removed documentation for old endpoints

V2.6 – Made the following changes:

- Section 2, Deprecated information on how to obtain a OAuth 2.0 Bearer Token and replaced with new steps.
- Section 5.1, Deprecated POST request sample for access tokens and replaced with new sample POST request.