

GARMIN INTERNATIONAL

Garmin Connect Developer Program Training API V2

Version 1.0

CONFIDENTIAL

1 Revision History

Version	Date	Revisions
1.0	05/26/2025	Initial version

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2 Getting Started

2.1 Purpose of the API

The Garmin Connect Training API is the underlying mechanism that allows users to import workouts and workout schedules from third-party platforms for supported activity types into their Garmin Connect account, making it easy to manage this type of information in a centralized location.

Support Email: connect-support@developer.garmin.com

2.2 Consumer Key and Secret

Garmin Connect Training API partners will be provided with a consumer key and secret, which will be used to gain access to the Training API. The consumer key is used to identify a partner's app uniquely, and the consumer secret is used to validate that the requests received are from that partner and not from a third party that has gained unauthorized access to the consumer key. The consumer key can be considered public information, **but the consumer secret is private**. For the security of users, the consumer secret should be secured and never sent over a network in plain text.

Consumer key credentials are created using the Developer Portal and the creation of apps (<https://developerportal.garmin.com/user/me/apps?program=829>).

Your first app is designed for testing, and the partner must pass the app review to request a production-level app for commercial use.

- **Please see “Requesting a Production Key” below for more information.**
- **Evaluation-level apps violating API guidelines may be disabled with no prior notice.**

2.3 User Registration

Before a partner can write data to a user's account, the user must grant the partner write access. Please refer to the detailed Garmin OAuth documentation for details on acquiring, authorizing, and signing with a User Access Token (UAT) to write data to a Garmin user's account.

2.4 Training API Import Types

All data uploaded to Garmin Connect via the Training API can either be categorized as a workout or a workout schedule. The API allows for the standard CRUD operations on these two data types.

- ***Workout***

A workout contains a list of steps for the user to take as part of their workout, as well as metadata about the workout (e.g. description, sport type, etc.).

- ***Workout Schedule***

A workout schedule allows a previously defined workout to be scheduled for a specified day.

2.5 Requesting a Production Key

The first consumer key generated through the Developer Portal is an evaluation key. This key is rate-limited and should only be used for testing, evaluation, and development. To receive production-level credentials, Garmin must review and approve the Training API integration to ensure high-quality user experience in Garmin Connect. Garmin will also review partner applications and/or websites to ensure proper usage of Garmin assets (e.g., device images, logos) and adherence to Garmin brand guidelines.

Please email Training API support at connect-support@developer.garmin.com to request and schedule a production readiness review.

Garmin will review the following technical review:

- Authorization for at least two Garmin Connect users.
- User Deregistration/User Permission Endpoints enabled.
- No unnecessary or excessive API call utilization or volume.
- Proper handling of quota violations and subsequent retry attempts.

User experience review. This review can be achieved through a demonstration application to Garmin via video conference or other mutually agreed-upon method. This review is used to confirm that the following criteria are met:

- Proper representation of all Garmin trademarked/copyrighted terms.
- Proper representation of Garmin products and product images.
- The user experience (UX) flow does not misrepresent Garmin or portray it in a negative light.

2.6 API Rate Limiting or Excessive Usage

To manage capacity and ensure system stability, Garmin Training API implementations may be subject to rate limiting.

Please plan the implementation with the following limitations in mind:

Evaluation Rate Limits

100 API call requests per partner per minute - a rolling 60 second window summing the Oauth requests and API calls.

200 API call requests per user per day - a rolling 24-hour window excluding Oauth requests.

Production Rate limits

3000 API call requests per partner per minute - a rolling 60 second window summing the Oauth requests and API calls.

1000 API call requests per user per day - a 24-hour window rolling excluding Oauth requests.

If one or both above limits are exceeded by a partner or a specific user, the subsequent API call request attempts will receive an HTTP Status Code 429 (too many requests). The calls in question will need to be attempted again later.

3 Training API Endpoint Details

3.1 Training API Permissions

Consumers can have multiple permissions like “Activity Export” and “Workout Import” set up with GC. Users, while signing up may only opt in for fewer permissions, so this endpoint helps in fetching the permissions for that particular user.

Method & URL: GET <https://apis.garmin.com/userPermissions/>

Response body: The retrieved user permissions in JSON.

Example response for this endpoint:

```
{[ "WORKOUT_IMPORT"]}
```

Users can change their permission after the permission at their [Garmin Connect account settings](#); Partners will be notified via the User Permission summary Endpoint (see Start Guide, section 2.6.3 for the summary description)

3.2 Workouts

3.2.1 Field Definitions

Multisport workouts have a limit of 25 segments (25 individual sports) and 250 steps overall. Single sport workout (one segment) has a limit of 100 steps.

List of devices supporting each workout sport types

<https://support.garmin.com/en-US/?faq=ILvhWrmlMv0vGmyGpWjOX6>

Workout	Data Type	Description
workoutId	Long	A unique identifier for the Workout. This field is not necessary for the Create action and will be set automatically.
ownerId	Long	A unique identifier for the owner of the Workout. This field is not necessary for Creating workouts but is required for updates.
workoutName	String	The name of the Workout.
description	String	A description of the Workout with a maximum length of 1024 characters. Longer descriptions will be truncated.
updatedAt	String	A datetime representing the last update time of the Workout, formatted as YYYY-mm-dd. Example: "2019-01-14T16:25:10.0". This field is not necessary for Create or Update actions and will be set automatically.
createdAt	String	A datetime representing the creation time of the Workout, formatted as YYYY-mm-dd. Example: "2019-01-14T16:25:10.0". This field is not necessary for Create or Update actions and will be set automatically.
sport	String	The type of sport. Multi Sport workouts: MULTI_SPORT Single Segment (sport) workouts: RUNNING, CYCLING, LAP_SWIMMING, STRENGTH_TRAINING, CARDIO_TRAINING, GENERIC (supported by some devices only), YOGA, PILATES
estimatedDurationInSecs	Integer	The estimated duration of the Workout in seconds. This value is calculated server-side and will be ignored in Create and Update actions.
estimatedDistanceInMeters	Double	The estimated distance of the Workout in meters. This value is calculated server-side and will be ignored in Create and Update actions.
poolLength	Double	The length of the pool. Used for when LAP_SWIMMING segment is present.

		Pull Length can be null for undefined pulls (not all devices support undefined pool, see Appendix C)
poolLengthUnit	String	The unit of the pool length. Valid values: YARD, METER.
workoutProvider	String	The workout provider to display to the user (20 characters max).
workoutSourceId	String	The workout provider to use for internal tracking purposes. This value should be the same as workoutProvider unless otherwise noted (20 characters max).
isSessionTransitionEnabled	Boolean	Must be set to true if workouts should have transitions for multisport workouts.
Segment	List<Segments>	A list of Segments (individual sports) that specify the details of the workout.
Segment	Data Type	Description
segmentOrder	Integer	Represents the order of the Segments (individual sport)
sport	String	The type of sport. Valid values: RUNNING, CYCLING, LAP_SWIMMING, STRENGTH_TRAINING, CARDIO_TRAINING, GENERIC (supported by some devices only), YOGA, PILATES
estimatedDurationInSecs	Integer	The estimated duration of the Segment in seconds. This value is calculated server-side and will be ignored in Create and Update actions. Will be set to null for single segments workouts
estimatedDistanceInMeters	Double	The estimated distance of the Segment in meters. This value is calculated server-side and will be ignored in Create and Update actions. Will be set to null for single segments workouts
poolLength	Double	The length of the pool. Used for LAP_SWIMMING. Must match poolLength provided in the Workout section for Multi Sport workouts. Will be set to null for single segments workouts (see examples below)
poolLengthUnit	String	The unit of the pool length. Valid values: YARD, METER. Must match poolLength provided in the Workout section for Multi Sport workouts. Will be set to null for single segments workouts (see examples below)
steps	List<Step>	A list of Steps that specify the details of the workout.

WorkoutStep	Data Type	Description
type	String	The type of Step. Valid values are WorkoutStep and WorkoutRepeatStep. WorkoutStep type Steps contains details of the Step itself, while workoutRepeatSteps contain a sub-list of Steps that should be repeated until a condition is met as specified in the repeatType and repeatValue field.
stepId	Long	A unique ID is generated for Step. This value is calculated server-side and will be ignored in Create actions.
stepOrder	Integer	Represents the order of the Step.
repeatType	String	The type of repeat action specifies how long or until when the user should repeat the sub-list of Steps. Used only for WorkoutRepeatSteps. Valid values: REPEAT_UNTIL_STEPS_CMPLT, REPEAT_UNTIL_TIME, REPEAT_UNTIL_DISTANCE, REPEAT_UNTIL_CALORIES, REPEAT_UNTIL_HR_LESS_THAN, REPEAT_UNTIL_HR_GREATER_THAN, REPEAT_UNTIL_POWER_LESS_THAN, REPEAT_UNTIL_POWER_GREATER_THAN, REPEAT_UNTIL_POWER_LAST_LAP_LESS_THAN, REPEAT_UNTIL_MAX_POWER_LAST_LAP_LESS_THAN
repeatValue	Double	The value of repeating action. When paired with repeatType, specifies how long or until when the user should repeat the sub list of steps. Used only for WorkoutRepeatSteps.
skipLastRestStep	Boolean	Flag to support Garmin Connect Skip Rest step feature. Set to true automatically for all LAP_SWIMMING workouts to support backward compatibility.
steps	List<Step>	The list of steps that should be repeated as specified by repeatType and repeatValue. Used only for WorkoutRepeatSteps.
intensity	String	The intensity of the Step. Valid values: REST, WARMUP, COOLDOWN, RECOVERY, ACTIVE, INTERVAL, MAIN (SWIM only)
description	String	A description of the Step with a maximum of 512 characters. Longer descriptions will be truncated.
durationType	String	The type of duration. Paired with durationValue, this represents the relative duration of the Step. Valid values: TIME, DISTANCE, HR_LESS_THAN, HR_GREATER_THAN, CALORIES, OPEN, POWER_LESS_THAN, POWER_GREATER_THAN, TIME_AT_VALID_CDA, FIXED_REST (for rest steps) REPS (HIIT, CARDIO, STRENGTH_TRAINING only)

		<p>LAP_SWIMMING ONLY: FIXED_REST (should be used for REST In LAP_SWIMMING) REPETITION_SWIM_CSS_OFFSET (CSS-Based Send-Off Time) valid values -60 to 60) FIXED_REPETITION (Send-off time) Please note "poolLengthUnit" must be set with the use of send-off time.</p>
equipmentType	String	The type of equipment needed for this Step. Currently used only for LAP_SWIMMING Workouts. Valid values: NONE, SWIM_FINS, SWIM_KICKBOARD, SWIM_PADDLES, SWIM_PULL_BUOY, SWIM_SNORKEL
exerciseCategory	String	<p>The exercise category for this Step. Used only for STRENGTH_TRAINING and CARDIO_TRAINING, HIIT, PILATES, and YOGA Workouts.</p> <p>Valid values: See Appendix A and B.(excel file)</p>
exerciseName	String	<p>The exercise name for this Step. Used only for STRENGTH_TRAINING and CARDIO_TRAINING, HIIT, PILATES, and YOGA Workouts.</p> <p>See Appendix A and B (excel file)</p>
weightValue	Double	The weight value for this step is kilograms. Used only for STRENGTH_TRAINING Workouts.
weightDisplayUnit	String	The units in which to display the weightValue to the user, if a weightValue exists. The display unit does not impact weightValue within the Training API, only for display. Valid values: KILOGRAM, POUND
durationValue	Double	The duration value. Pair with durationType, this represents the relative duration of the Step.
durationValueType	String	A modifier for duration value is used only for HR and POWER, types to express units. Valid values: PERCENT
targetType	String	<p>The type of target for this Step. Valid values: SPEED, HEART_RATE, CADENCE, POWER, GRADE, RESISTANCE, POWER_3S, POWER_10S, POWER_30S, POWER_LAP, SPEED_LAP, HEART_RATE_LAP, OPEN PACE (as speed in m/s)</p> <p>Please note that targetType is not supported for swim workouts. Please set targetType as null for swim</p>

		<p>workouts</p> <p>Use PAZE_ZONE as the secondary target for swim workouts.</p> <p>OPEN – if using secondary target, this value cannot be set as targetType.</p>
targetValue	Double	The target HR (valid values 1-5) or power zone (valid values 1-7) to be used for this Step. Target zones must have been previously defined and saved.
targetValueLow	Double	The lowest value for the target range. Used to specify a custom range instead of specifying a target zone through targetValue.
targetValueHigh	Double	The highest value for the target range. Used to specify a custom range instead of specifying a target zone through targetValue.
targetValueType	String	A modifier for target value is used only for HR and POWER types to express units. Valid values: PERCENT
secondaryTargetType*	String	<p>The type of target for this Step. Valid values: SPEED, HEART_RATE, OPEN, CADENCE, POWER, GRADE, RESISTANCE, POWER_3S, POWER_10S, POWER_30S, POWER_LAP, SPEED_LAP, HEART_RATE_LAP, PACE (as speed in m/s)</p> <p>LAP_SWIMMING WORKOUT only:</p> <ol style="list-style-type: none"> 1. SWIM_INSTRUCTION (Text-based Intensity target) 2. SWIM_CSS_OFFSET <p>PACE_ZONE (in m/s)</p>
secondaryTargetValue*	Double	The target HR (valid values 1-5) or power zone (valid values 1-7) is to be used for this Step. Target zones must have been previously defined and saved.
secondaryTargetValueLow*	Double	<p>The lowest value for the target range. Used to specify a custom range instead of specifying a target zone through targetValue.</p> <p>LAP_SWIMMING:</p> <p>SWIM_INSTRUCTION valid values: 1- 10</p> <ol style="list-style-type: none"> 1 -RECOVERY 2 -VERY EASY 3 -EASY 4 -MODERATE 5 -HARD

		6 -VERY_HARD 7 -ALL_OUT 8 -FAST 9 -ASCEND 10 -DESCEND SWIM_CSS_OFFSET (CSS-Based Target Pace) valid value: -60 to 60 (seconds) PACE_ZONE Provide value in m/s 0.8333333333333334 device with the metric system shown as 2:00/100
secondaryTargetValueHigh*	Double	The highest value for the target range. Used to specify a custom range instead of specifying a target zone through targetValue.
secondaryTargetValueType*	String	A modifier for target value is used only for HR and POWER types to express units.
strokeType	String	The type of stroke for this Step. Used only in LAP_SWIMMING Workouts. Valid values: BACKSTROKE, BREASTSTROKE, BUTTERFLY, FREESTYLE, MIXED, IM, RIMO, CHOICE
drillType	String	The type of drill for this Step. Used only in LAP_SWIMMING Workouts. Valid values: KICK, PULL, BUTTERFLY
equipmentType	String	The type of equipment needed for this Step. Currently used only for LAP_SWIMMING Workouts. Valid values: NONE, SWIM_FINS, SWIM_KICKBOARD, SWIM_PADDLES, SWIM_PULL_BUOY, SWIM_SNORKEL
exerciseCategory	String	The exercise category for this Step. Used only for STRENGTH_TRAINING, YOGA, and CARDIO_TRAINING Workouts. Valid values: See Appendix A and B.
exerciseName	String	The exercise name for this Step. Used only for STRENGTH_TRAINING and CARDIO_TRAINING, HIIT, PILATES, and YOGA Workouts. See Appendix A for the list of exercise names for YOGA and PILATES See Appendix B for the list of exercise names for STRENGTH_TRAINING and CARDIO_TRAINING, HIIT

weightValue	Double	The weight value for this step is kilograms. Used only for STRENGTH_TRAINING Workouts.
weightDisplayUnit	String	The units in which to display the weightValue to the user, if a weightValue exists. The display unit does not impact weightValue within the Training API, only for display. Valid values: KILOGRAM, POUND

List of supported devices for CYCLING secondary target <https://support.garmin.com/en-US/?faq=EMMh03mfYU59Zt0ldOw0U6>

The secondary target is valid for:

1. CYCLING and should be treated as a less formal, accessory target. The target type for a secondary target should be different from the primary target. If secondary target is used, OPEN cannot be used as first target.
2. Secondary is also supported for SWIM workouts to provide a text-based target, pace, CSS-based target pace (see Appendix C for additional details)

** Swim workouts should be distance-based and if there is a repeat block with rest as a step included, an extra repeat step should be added after the repeat block because the device will skip the last rest step in the repeat block.

3.2.2 Example JSON

```
MULTI_SPORT:
{
  "ownerId": 12345,
  "workoutName": "TEST",
  "description": "TEST",
  "sport": "MULTI_SPORT",
  "estimatedDurationInSecs": 1200,
  "estimatedDistanceInMeters": 1400,
  "poolLength": null,
  "poolLengthUnit": null,
  "workoutProvider": "multisport",
  "workoutSourceId": "multisport",
  "isSessionTransitionEnabled": true,
  "segments": [
    {
      "segmentOrder": 1,
```

```
"sport": "CYCLING",
"poolLength": null,
"poolLengthUnit": null,
"estimatedDurationInSecs": 500,
"estimatedDistanceInMeters": 500,
"steps": [
  {
    "type": "WorkoutStep",
    "stepOrder": 1,
    "intensity": "ACTIVE",
    "description": "",
    "durationType": "DISTANCE",
    "durationValue": 1000,
    "durationValueType": "METER",
    "targetType": "OPEN",
    "targetValue": null,
    "targetValueLow": null,
    "targetValueHigh": null,
    "targetValueType": null,
    "secondaryTargetType": null,
    "secondaryTargetValue": null,
    "secondaryTargetValueLow": null,
    "secondaryTargetValueHigh": null,
    "secondaryTargetValueType": null,
    "strokeType": null,
    "drillType": null,
    "equipmentType": null,
    "exerciseCategory": null,
    "exerciseName": null,
    "weightValue": null,
    "weightDisplayUnit": null
  },
  {
    "type": "WorkoutRepeatStep",
    "stepOrder": 2,
    "repeatType": "REPEAT_UNTIL_STEPS_CMPLT",
    "repeatValue": 4,
    "steps": [
      {
        "type": "WorkoutStep",
        "stepOrder": 3,
        "intensity": "ACTIVE",
        "description": null,
        "durationType": "DISTANCE",
        "durationValue": 100,
        "durationValueType": "METER",
        "targetType": null,
        "targetValue": null,
        "targetValueLow": null,
        "targetValueHigh": null,

```

```

        "targetValueType": null,
        "secondaryTargetType": null,
        "secondaryTargetValue": null,
        "secondaryTargetValueLow": null,
        "secondaryTargetValueHigh": null,
        "secondaryTargetValueType": null,
        "strokeType": null,
        "equipmentType": null,
        "exerciseCategory": null,
        "exerciseName": null,
        "weightValue": null,
        "weightDisplayUnit": null
    }
}
}
]
},
{
    "segmentOrder": 2,
    "sport": "RUNNING",
    "poolLength": null,
    "poolLengthUnit": null,
    "estimatedDurationInSecs": null,
    "estimatedDistanceInMeters": null,
    "steps": [
        {
            "type": "WorkoutStep",
            "stepOrder": 4,
            "intensity": "ACTIVE",
            "description": "",
            "durationType": "DISTANCE",
            "durationValue": 1000,
            "durationValueType": "METER",
            "targetType": "OPEN",
            "targetValue": null,
            "targetValueLow": null,
            "targetValueHigh": null,
            "targetValueType": null,
            "secondaryTargetType": null,
            "secondaryTargetValue": null,
            "secondaryTargetValueLow": null,
            "secondaryTargetValueHigh": null,
            "secondaryTargetValueType": null,
            "strokeType": null,
            "drillType": null,
            "equipmentType": null,
            "exerciseCategory": null,
            "exerciseName": null,
            "weightValue": null,
            "weightDisplayUnit": null
        }
    ]
}

```



```

    },
    {
      "type": "WorkoutRepeatStep",
      "stepOrder": 5,
      "repeatType": "REPEAT_UNTIL_STEPS_CMPLT",
      "repeatValue": 4,
      "steps": [
        {
          "type": "WorkoutStep",
          "stepOrder": 6,
          "intensity": "ACTIVE",
          "description": null,
          "durationType": "DISTANCE",
          "durationValue": 100,
          "durationValueType": "METER",
          "targetType": null,
          "targetValue": null,
          "targetValueLow": null,
          "targetValueHigh": null,
          "targetValueType": null,
          "secondaryTargetType": null,
          "secondaryTargetValue": null,
          "secondaryTargetValueLow": null,
          "secondaryTargetValueHigh": null,
          "secondaryTargetValueType": null,
          "strokeType": null,
          "equipmentType": null,
          "exerciseCategory": null,
          "exerciseName": null,
          "weightValue": null,
          "weightDisplayUnit": null
        }
      ]
    }
  ]
}

```

SINGLE Segment (one sport type)

```

{
  "ownerId": 12345,
  "workoutName": "TEST",
  "description": "TEST",
  "sport": "CYCLING",
  "estimatedDurationInSecs": 1200,
  "estimatedDistanceInMeters": 1400,
  "poolLength": null,
  "poolLengthUnit": null,

```

```
"workoutProvider": "single_segemnt",
"workoutSourceId": "single_segemnt",
"isSessionTransitionEnabled": false,
"segments": [
  {
    "segmentOrder": 1,
    "sport": "CYCLING",
    "poolLength": null,
    "poolLengthUnit": null,
    "estimatedDurationInSecs": 500,
    "estimatedDistanceInMeters": 500,
    "steps": [
      {
        "type": "WorkoutStep",
        "stepOrder": 1,
        "intensity": "ACTIVE",
        "description": "",
        "durationType": "DISTANCE",
        "durationValue": 1000,
        "durationValueType": "METER",
        "targetType": "OPEN",
        "targetValue": null,
        "targetValueLow": null,
        "targetValueHigh": null,
        "targetValueType": null,
        "secondaryTargetType": null,
        "secondaryTargetValue": null,
        "secondaryTargetValueLow": null,
        "secondaryTargetValueHigh": null,
        "secondaryTargetValueType": null,
        "strokeType": null,
        "drillType": null,
        "equipmentType": null,
        "exerciseCategory": null,
        "exerciseName": null,
        "weightValue": null,
        "weightDisplayUnit": null
      },
      {
        "type": "WorkoutRepeatStep",
        "stepOrder": 2,
        "repeatType": "REPEAT_UNTIL_STEPS_CMPLT",
        "repeatValue": 4,
        "steps": [
          {
            "type": "WorkoutStep",
            "stepOrder": 3,
            "intensity": "ACTIVE",
            "description": null,
            "durationType": "DISTANCE",
```

```

    "durationValue": 100,
    "durationValueType": "METER",
    "targetType": null,
    "targetValue": null,
    "targetValueLow": null,
    "targetValueHigh": null,
    "targetValueType": null,
    "secondaryTargetType": null,
    "secondaryTargetValue": null,
    "secondaryTargetValueLow": null,
    "secondaryTargetValueHigh": null,
    "secondaryTargetValueType": null,
    "strokeType": null,
    "equipmentType": null,
    "exerciseCategory": null,
    "exerciseName": null,
    "weightValue": null,
    "weightDisplayUnit": null
  },
  {
    "type": "WorkoutStep",
    "stepOrder": 4,
    "intensity": "ACTIVE",
    "description": "",
    "durationType": "DISTANCE",
    "durationValue": 1000,
    "durationValueType": "METER",
    "targetType": "OPEN",
    "targetValue": null,
    "targetValueLow": null,
    "targetValueHigh": null,
    "targetValueType": null,
    "secondaryTargetType": null,
    "secondaryTargetValue": null,
    "secondaryTargetValueLow": null,
    "secondaryTargetValueHigh": null,
    "secondaryTargetValueType": null,
    "strokeType": null,
    "drillType": null,
    "equipmentType": null,
    "exerciseCategory": null,
    "exerciseName": null,
    "weightValue": null,
    "weightDisplayUnit": null
  },
  {
    "type": "WorkoutRepeatStep",
    "stepOrder": 5,
    "repeatType": "REPEAT_UNTIL_STEPS_CMPLT",
    "repeatValue": 4,

```

```
"steps": [  
  {  
    "type": "WorkoutStep",  
    "stepOrder": 6,  
    "intensity": "ACTIVE",  
    "description": null,  
    "durationType": "DISTANCE",  
    "durationValue": 100,  
    "durationValueType": "METER",  
    "targetType": null,  
    "targetValue": null,  
    "targetValueLow": null,  
    "targetValueHigh": null,  
    "targetValueType": null,  
    "secondaryTargetType": null,  
    "secondaryTargetValue": null,  
    "secondaryTargetValueLow": null,  
    "secondaryTargetValueHigh": null,  
    "secondaryTargetValueType": null,  
    "strokeType": null,  
    "equipmentType": null,  
    "exerciseCategory": null,  
    "exerciseName": null,  
    "weightValue": null,  
    "weightDisplayUnit": null  
  }  
]  
}  
]  
}
```

3.2.3 Create

This request is to create a workout by/for a user:

Method & URL: POST <https://apis.garmin.com/workoutportal/workout/v2>

Request body: The new workout in JSON. A workout ID should not be included.

Content-Type: application/json

Response Body: The newly created workout as JSON.

3.2.4 Retrieve

This request is to retrieve a workout by/for a user:

Method & URL: GET <https://apis.garmin.com/training-api/workout/v2/{workoutId}>

Response body: The retrieved workout in JSON.

3.2.5 Update

This request is to update a workout by/for a user:

Method & URL: PUT <https://apis.garmin.com/training-api/workout/v2/{workoutId}>

Request body: The full updated workout in JSON.

Content-Type: application/json

3.2.6 Delete

This request is to delete a workout by/for a user:

Method & URL: DELETE <https://apis.garmin.com/training-api/workout/v2/{workoutId}>

3.2.7 Response Code

HTTP Response Status	Description
200/204	Workout successfully created
400	Bad Request
401	User Access Token doesn't exist
403	Not allowed
412	User Permission error
429	Quota violation / rate-limiting

3.3 Workout Schedules

3.3.1 Field Definitions

Filed Name	Description
scheduleId	A unique identifier for the workout schedule
workoutId	The ID of the workout to which the schedule refers
date	The schedule data, formatter as 'YYYY-mm-dd'

3.3.2 Example JSON

```
{  
  "scheduleId":123, "workoutId":123, "date":"2019-01-31"  
}
```

3.3.3 Create

This request is to create a workout schedule by/for a user:

Method & URL: POST <https://apis.garmin.com/training-api/schedule/>

Request body: A workout schedule to create. A schedule Id should not be included.

Content-Type: application/json

3.3.4 Retrieve

This request is to retrieve a workout schedule by/for a user:

Method & URL:

GET <https://apis.garmin.com/training-api/schedule/{workoutScheduleId}>

Response body: The retrieved workout schedule

3.3.5 Update

This request is to update a workout schedule by/for a user:

Method & URL:

PUT <https://apis.garmin.com/training-api/schedule/{workoutScheduleId}>

Request body: The full workout schedule in JSON.

Content-Type: application/json

Response body: The updated workout schedule.

3.3.6 Delete

This request is to delete a workout schedule by/for a user:

Method & URL:

DELETE <https://apis.garmin.com/training-api/schedule/{workoutScheduleId}>

3.3.7 Retrieve by Date

This request is used to retrieve the workout schedule by/for a user by date range:

Method & URL:

GET <https://apis.garmin.com/training-api/schedule?startDate=YYYY-mm-dd&endDate=YYYY-mm-dd>

3.3.8 Response Code

HTTP Response Status	Description
200/204	Workout successfully created
400	Bad Request
401	User Access Token doesn't exist
403	Not allowed
412	User Permission error
429	Quota violation / rate-limiting

Appendix C.

Garmin Connect Swim improvements feature overview

This is an overview of all changes for the Training API and swim workouts 2024

Improvement	JSON/comments
Support for 100 workout steps for all sport types (except Forerunner 935 generation and older, Fenix 5 generation and older)	
Handling pool size mismatches on devices. If your pool size provided via API differs from the pool size set on the watch, users are given the option on your device to convert the workout and do it anyway	
“Unspecified” pool size support. Workouts created with unspecified pool sizes can be completed in any size of the pool. The step distances specified in the workout are shown on the device without conversion.	"poolLength" : null, "poolLengthUnit": null Please note "poolLengthUnit" must be set using send-off time, CSS-Based Send-Off Time, and pace secondary target. Valid values: YARD, METER
Swim target supported as secondary target (no primary target must be specified) Text-based Intensity target CSS (valid values -60 to 60) Pace is officially supported as a secondary target	"targetType": null, "secondaryTargetType": "SWIM_INSTRUCTION", "secondaryTargetValueLow": "RECOVERY" "targetType": null, "secondaryTargetType": "SWIM_CSS_OFFSET", "secondaryTargetValueLow": -5, "targetType": null, "secondaryTargetType": "PACE_ZONE", "secondaryTargetValueLow": 0.5555555555555556 (the number needs to be provided in m/s) Please note "poolLengthUnit" must be set using send-off time and pace secondary

	target. Valid values: YARD, METER
New drill types (“Kick”, “Pull”, and “Drill”) are shown separately from the stroke type on the user's device. E.g. “Free Pull” or “Butterfly Kick”.	"strokeType": "BUTTERFLY" "drillType": "KICK" (targetType will is not supported with use of strokeType, please use secondary target to specify targets).
New stroke types: - RIMO (Reverse IM order) - IM by Round - Choice	"strokeType": "RIMO"
New Step Intensity - Main	"intensity": "MAIN"
New Duration types for Swim Rest Step added: CSS-Based Send-Off Time and Send-off time Send-off times and target paces defined relative to your CSS will automatically adjust when your CSS changes. Default CSS is 2:00 / 100 m.	REPETITION_SWIM_CSS_OFFSET (CSS-Based Send-Off Time) valid values -60 to 60 FIXED_REPETITION (Send-off time) Please note "poolLengthUnit" must be set with use of send-off time and pace secondary target. Valid values: YARD, METER
skipLastRestStep	Optional Flag to support Garmin Connect Skip Rest step feature. Set to true for all LAP_SWIMMING workout to support backward compatibility.
Time-Based steps support. On the device, an alert sounds when the target time has elapsed. Continue swimming to the wall and press Lap to advance to the next step.	Range: 1 minute - 59 minutes.