

JMP-APP DOWNHILLS User Manual



Conception - Design - Programmation
Jean-Michel Gruber

Contact : rachma07@live.fr or contact@jeanmichelgruber.com

Personal website
<https://www.jeanmichelgruber.com/applications-garmin-garmin-apps/>

Information about the purchase and installation process of the application

As the procedure is not automated, the response to your purchase always takes place, in principle, within 24 hours maximum, by sending a confirmation email.

If despite everything you have not received a response from me within this period, check that your PayPal address is correct, or that my response has not fallen in your spam box. It is also possible that your email went "by the wayside" and that I simply did not see it... oops! This is very rare, but it can happen... In this case, just send me an email as a reminder!

Thanks in advance.

For **Wind-Kite Surfing, Surfing, Wakeboarding, Foiling, Pumptrack, Downhills** and **Tides** applications, and to be able to calculate your personal activation code, please send me an email with the following information:

your identifier number

appearing in the pop-up window each time the application is started (as long as a valid activation code has not been entered in the application).

You can also find this identifier by going to the following menu:

« **Tools → Activation Code → ID Number** »

Upon receipt of your email containing this identifying number, I will respond to you by sending another email, which will therefore contain your **activation code** as well as some other additional information that may be useful.

Features offered by the application

A complete application to manage all your sessions involving the repeated use of courses or downhill skiing, snowboarding, snowfeet, cross-country skiing, downhill mountain biking, longboarding on the road, inline and downhill skating, etc.

It is available in 4 languages (English, French, Spanish, Italian) for models with at least 1024 KB of useful memory, and only in English for models with a lower memory.

The main advantage of this application is to allow you to record courses or descents that you practice regularly and, thus, to be able to compare your performances each time you make a session on these same courses or descents, all of almost automated way!

You can automatically generate or manually create up to 20 different courses, which will be then stored permanently on the watch.

However, you do not need to use this feature, you can also use the application as a complete recording of your session, which will then contain all the important data stored in the FIT file.

Read below the How To in the procedure section.

Seven screens are available:

- **screen 1:** Main screen (current speed, the altitude you are in, the temperature, the total distance traveled, the speed threshold indicator selected, the time in stop / pause mode, or the chrono mode walk, and the GPS signal quality indicator (green = good, orange = medium, red = poor or nonexistent), and the type of activity in progress (as an icon)

- **screen 2:** screen of the current session (temperature reminder, heart rate with colored FC zones, times of ride and transition periods, distances of ride and transition periods, average and max speeds of the session, the positive and negative elevations on the session) -> see the descriptive image below for more explanations

- **screen 3:** graphical representation of the performances on a course or descent recorded in the list of courses, with the addition of the time (in the format 12/24 hours) and the current speed -> see the descriptive image ci below for more explanations

- **screen 4:** encrypted performances for a course or a descent selected in the list -> see the descriptive image below for more explanations

- **screen 5 of the global statistics:** the total duration of all sessions combined, the total distance, the maximum speed, all sessions combined, and the total time and distance data for ridden and transition periods

- **screen 6:** map of the geographical area where you are located (make sure to choose in advance the ski detailed map in the map settings of your watch, if it has this feature, when you practice a winter activity)

- **end-of-session screen:** displays a summary of the main data obtained during the session

In the FIT file, the following data are saved:

- speed (graph, Garmin default data)
- altitude (graph, Garmin default data)
- the negative and positive elevations (summary, Garmin default data)
- caloric expenditure during the session (summary, given by default Garmin)

- the total duration + total distance of the ridden period (summary)
- the total duration + total distance of the transition period (summary)
- the difficulty of the session (summary)
- the notation of the session (summary)

- each run / descent performed is recorded as a lap with, as recorded data, the chrono, the average speed and the max speed

Note: all the options set in the menu are permanently saved into the watch so, no need to configure them each time you launch the application.

Given its complexity and time spent developing, the price of this application is set to **12 US dollars**.

For further detailed explanations, you can consult the detailed images below.

Despite all the care taken in this application, it could remain some hidden bugs, or possible malfunctions. Therefore, thank you to contact me directly by email to inform me rather than posting bad comments on the site, I will then do what is necessary to fix the issue as soon as possible. Thank you in advance.

Currently unemployed, I develop applications for the Garmin community to stay active and in the wind.

The paid version can be unlocked via my Paypal account (see the link above), with the possibility to pay with credit cards too.

Don't forget to mention, in your PayPal comment, the name of the application, JMG-APP Downhills, and your identifier number, in order to be able to calculate your activation code.

Please, feel free to enjoy !

Procedure

Entering the activation code

for all watch models, the activation code is entered directly from the application menu:
launch the application on the watch then, enter the menu by a long press on the UP key
finally, go to Options -> Activation Code -> Unlock the Application

When starting / launching the application

You will be greeted with a welcome popup screen which will be displayed during about 5 seconds. This screen also shows you the current version number of the application, which allows you to see, at a glance, whether it is up to date or not.



Behavior of the application:

→ downhill activities

- at the bottom of the resort / downhill, before going to the chairlift or going up the slope, you start the session by pressing the START key, this initiates the calculation of the so-called transition period (period during which you do not ride, but which nonetheless counts as session time)

- then, you climb up the slopes, comfortably installed on your seat. Arrived at the top, you position yourself at the beginning of what you consider as your descent then, you press the LAP key of the watch in order to start the calculation, and you run for your descent. At the end of it, you stop completely, then the calculation stops automatically too, and the chrono, descent speed and max speed data are automatically recorded for this descent; the active course then becomes the descent you have just performed

- thus, if you want to go up again to make the same descent, the data calculation will start automatically when you reach the same starting point (no need to press the LAP key again), and so on. Each descent is recorded in the FIT file as a lap, giving you the ability to view Garmin Connect's performance on each descent.

- if you wish to descend / run on another course during the same session, it's very simple: go to the starting point of this new course then, press the LAP button again, this starts the chrono on this new course; at the end of the course, press the LAP button again to end the lap; the course data as well as the route information are then automatically recorded and saved into the list of your routes

- to end the session, you just have to press the START key and choose to save the session or not (in case of backup, you will have the possibility to indicate the difficulty of the session (or the difficulty of the downhill, or a general difficulty level), as well as your general feeling about the day's session

- in this mode, the auto-pause feature is disabled by default, just because you are not supposed to take a break during your downhill ride !

→ other flat or non downhill activities

- start the session by pressing the START key at the beginning of your session

- once you arrive at the start of what you consider as your course, you press the LAP key to start the calculation of the data

- you ride on your course; you can enable the auto-pause feature in the Option -> Speed Settings when you want to take a break, the application starts automatically when you are get speed again

- at the end of the trip, press the LAP key again to stop the calculation; chrono data, course speed and max speed are automatically recorded for this route

- if you wish to do this route again, you just have to select it from the list of your routes, start the session by pressing the START key, and reach the starting point of the route. Arrived at the starting point of the route, the application will start automatically and, unlike the initial recording, the calculation will end automatically when you have reached the final distance of the route, so there is no need to press the LAP button again ! And so on...

- if you wish to run on another course during the same session, it's very simple: go to the starting point of this new course then, press the LAP button again, this starts the chrono on this new course; at the end of the course, press the LAP button again to end the lap; the course data as well as the route information are then automatically recorded and saved into the list of your routes

- to end the session, you just have to press the START key and choose to save the session or not (in case of backup, you will have the possibility to indicate the difficulty of the session (for example if you skied a blue or red, or rather black, run, or general difficulty level), as well as your general feeling about the day's session

For these three types of activity, another day after, when you want to compete on a course / downhill recorded in your list of courses, then simply choose it and select it from this list, start the session down the station, and let the app do the rest!

In all cases:

- you can record a maximum of 20 different routes in the route database
- a default name is automatically assigned to the new course / descent, name that you can change later at your convenience (15 alphanumeric characters maximum) to better characterize each of your routes / descents.

Preparing the app

- launch the application, like any other application
- first, you should set the application to your needs (background color, units, etc.). To do this, enter the application menu (long press the UP button) and select the parameters at your convenience. All the choices made in the menu are permanently stored on the watch so there is no need to re-enter them each time the application is launched
- it is also up to you to choose the kind of your activity, and to determine a minimum speed threshold that will differentiate the transition periods from the ridden periods (Options -> Speed - Settings menu). This speed threshold must correspond to the estimated speed of the ski lift that you are able to take, or the maximum speed at which you will climb the slope to join the start of your descent.

Currently, you can choose up to 8 different types of activities:

- skiing
 - snowboarding
 - cross-country and similar activities
 - downhill mountain bike
 - inline / roller skating
 - downhill skating
 - other kind of downhill activity
 - other kind of flat activity
- the Wide Screen allows you to have only the essential displayed on the screen, in larger font (this can be useful especially for people with eyesight difficulties, or wishing to focus on the essentials of displayed data). This screen is fully configurable, with the possibility to display 4 data for the top and bottom fields, and 2 for the middle field. Also, you can set a retroactive display delay when the application is paused (the minimal screen remains displayed for a few more seconds to allow you time to view the data displayed before returning to the other screens of the application). See image below for more details.
 - finally, launch the session by pressing the START key

Using the app

- scrolling screens is achieved by simply clicking the UP or DOWN keys
- you can pause the session by pressing the START key then "Pause" menu, and resume recording with a second press on the same key then, "Resume" menu
(pause = orange dots, active = green dots, stop = red dots)
- to end the session, you press the START key, a menu appears, proposing you to either reject or save the session. Then, a summary screen will be proposed to you, summarizing the main data of the session
- to quit the application in stop mode (when no session has been started), click on the LAP button, not on the START button
- the current time is displayed in the following 3 modes: when the application is waiting to be started, in pause mode, and in the minimalist screen otherwise, the timer is displayed.
- the course menu allows you to manage all your routes / descents recorded permanently into the watch. This menu allows you to:
 - create a route / descent whose distance and initial altitude are previously known by you, which you can enter manually
 - select a route / descent to be used during your session
 - automatically obtain the coordinates of the starting point of a route (if you created a route manually without having entered the GPS coordinates)
 - rename and change the distance manually for each course
 - reset the scores made on a course
 - individually delete a course, or all courses in the list
 - choose a free distance, which will be calculated automatically at the end of your course / descent (complete stop / zero speed - downhill mode, or by pressing the LAP key - flat or non downhill mode)
 - view the best scores for each course in the list. The "Info" menu presents the list of courses with, for each course, the full name, distance and altitude difference, then the scores achieved (best time - best average speed on the descent - best speed max)

> note:

when entering a new route manually, at the end of the process, you have the option of entering the coordinates (LAT-LON) of the starting point of the route, if you know them, or want to do it. These coordinates are to be entered in the degree-decimal format, and you can do this using the characters which are provided to you in the picker.

But, you can also leave these 2 values as "empty", by validating these two data by the choice "Ok" from the first character provided; the route will then not contain any starting GPS coordinates. However, you can get them automatically in two other ways, later:

- you do not want to make a run on this course: go to the starting point of the route, enter the courses management menu, select the course in question then, go to the "Get GPS coordinates" menu, and click on the START key to confirm. Then, GPS coordinates are automatically retrieved and saved in the course

- you wish to make a run on this course: go to the starting point of the course and press the LAP key to start the course (the GPS coordinates are automatically and immediately retrieved and saved into the course data) , for which the chrono continues to scroll to the end of the total distance of the route. Here, the chrono does not start automatically because, at the starting point, the GPS coordinates are unknown, hence the obligation to have to start the chrono by pressing the LAP key. On the other hand, at the next chrono on this same route, the chrono will start automatically, since the GPS coordinates are now known by the app.

Geolocation screen / go to the starting point of a route

This screen allows you to visually navigate to the starting point of the selected route (if there is one).

Operation:

- in stop/pause/run mode, the dark blue cursor indicates the course to follow to reach the starting point of the route, depending on the orientation of the watch (pause mode or near-zero speed) or the course followed. North at the top of the dial, west at the left, south at the bottom, and east at the right, like a compass rose
- when a route is saved (or has just been created) in the application, the GPS coordinates of the starting point are known and saved for this route
- once the route has been completed and completed, you are N meters / kilometers from this starting point, the screen then automatically switches to "search for the GPS starting point" mode
- to return to this starting point, nothing could be simpler: align the blue cursor with the black line located to the north of the dial then the direction to take is straight ahead of you!
- the closer you get to the POI and the more the distance value decreases, the colored central circle will remain red up to a distance of 33 yards then, will change to orange, yellow, light green and dark green, by decrement of 5.5 yards. So, if you enter a perimeter of less than 16 yards around this POI, the circle will remain dark green, and you will know for sure that you are on the POI! Cool, right?
- and, when you are within this 16-yards perimeter around this point, the start of the stopwatch on the course is automatically restarted, and the screen immediately returns to the viewing performance mode on this course, and so on ...



The screen is in performances view mode

 CIQ Simulator - fenix® 6 Pro / 6 Sapphire / 6 Pro Solar... Backlight Off 130.1/1275.5kB	 CIQ Simulator - fenix® 6 Pro / 6 Sapphire / 6 Pro Solar... Backlight Off 126.7/1275.5kB
The blue cursor indicates the course to take to head for the starting point. The black line, north of the dial, serves as a reference point which, when the cursor is aligned with this line, will indicate to you that you must go straight ahead.	The blue cursor is aligned with the black line on the north side of the watch, pointing straight ahead towards the starting point. The angle in degrees tells you the course to follow, as well as the distance separating you from the defined GPS point (in meters or yards, depending on the unit set on your watch)

Reset data/scores

You have the option to reset two types of data:

- only the best scores: your records, better performances
- all values: the best scores + all the data recorded over all your sessions (total distance, total time, etc)

Note that the reset is an irreversible function, all data will be lost after this action.

Assign values / scores

This feature allows you to manually assign a value to the data displayed on the "Stats" screen. This can be useful for example in the case of a replacement / change of your watch, and you do not want to lose all your global statistics. The data entry follows the same order as the data displayed on the "Stats" screen, to simplify your input.

Minimalist screen

In order to have the time permanently displayed on the screen, you can activate the minimalist screen: this screen offers the essentials and the minimum of informations, with an extended font (time, chrono, current speed, and colored arches - see the meaning of these arcs on the descriptive image below). This screen is easily readable during navigation, especially for users with a visual weakness and who can not wear their glasses during the activity.

This screen is activated in the application menu - Wide Screen -> Display → Enabled / Disabled. When it is activated, it is displayed when the session is started and therefore active. When you put the session in pause mode, this screen disappears to make room for all other screens, so you can, for example, see your performance / detailed information when you pause. When you restart your session, the minimalist screen reappears again.

GPS constellations (only for SDK 3.2.x compatible models)

If you find that your GPS track is not accurate enough, you can modify, directly into the application, the GPS constellation used by the application. You have the choice between: GPS only, GPS + Glonass and GPS + Galileo, this option is activated by the menu "Options -> Constellation", and thus avoids you having to do it outside the application, before its launch! Simpler, and faster than ever.

Features specific to touch screens

On the majority of models with a touch screen (some older models are not compatible with this feature), you can directly access certain common functions via two types of screen shortcuts:

- a short press (just tap on screen) on a delimited area of the screen
- a long press, either on a delimited area, or anywhere on screen

For more detailed explanation of these touch areas and the functions involved, see the descriptive image below.

Ecran principal et écran Stats / Main and Stats screens



Long press: while session is running or not, change the selected activity

Appui log: lorsqu'une session est active ou non, change l'activité sélectionnée

Long press: while session is running or not, change the speed threshold

Appui log: lorsqu'une session est active ou non, change le seuil de vitesse

Long press: while no session is active (or in pause mode), entering the scores window

Appui long: lorsqu'aucune session n'est active (ou en mode pause), entre dans l'affichage des scores

Short tap: while session is running, swap from timer to time of the day, alternatively

Long press: opens the quick access menu

Appui court: lorsqu'une session est active, permute entre l'affichage du chrono et l'heure

Appui long: ouvre le menu d'accès rapide

Long press: change the background color

Appui long: changement de la couleur de fond



Quick access menu

On models with a compatible touch screen, and compatible with **SDK version 3.4.0 minimum**, a long press on the lower right area of the screen opens a quick access menu to certain functions, thus saving you from having to navigate the main menu and its sub-menus to access these functions.



Descriptive Images

Wide Screen



Current time over the best time achieved on this course
 Green = you are under the best time, Red = you are above this best time
 Chrono actuel par rapport au meilleur chrono réalisé sur ce parcours
 Vert = vous êtes en-dessous du meilleur temps, Rouge = vous êtes au-dessus

Current average speed on the course over the best speed reached on it
 Vitesse moyenne actuelle du parcours par rapport à la meilleure vitesse atteinte sur ce parcours

Time / Current or average or max speeds / Distance
 Heure / Vitesses actuelle ou moyenne ou max / Distance

Chrono (green = session is running, orange = pause, purple = chrono launched for the course)

Chrono (vert = session active, orange = pause, violet = chrono lancé sur parcours)

Time / Current or average or max speeds / Distance
 Heure / Vitesses actuelle ou moyenne ou max / Distance

Remaining distance to ride
 Progression de la distance parcourue

This screen is intended to be easily readable during navigation, with minimalist data displayed in wide font.

You can activate this feature by setting the option in the menu
 -> Wide Screen-> Activate on/off

Cet écran a pour but d'être facilement lisible durant la navigation, avec le minimum d'informations affichées en forte police.

Vous pouvez activer cette fonction dans le menu -> Ecran Minimal

First and second screens

Main screen / Ecran principal

Temperature (Celsius or Fahrenheit)
 Température (Celsius ou Fahrenheit)

Altitude (meters or feet)
 Altitude (mètres ou pieds)

Time / Chrono
 Red = session stopped
 Green = session is active
 Orange = pause
 Purple = course chrono

Heure / Chrono
 Rouge = session arrêtée
 Vert = session active
 Orange = pause
 Violet = chrono sur parcours

Enter the menu
 Entrée dans le menu

Switch screens
 Défilement des écrans

Current speed
 Vitesse actuelle



Transition time
 Durée périodes de transition

Riding time
 Durée périodes de ride

GPS signal quality
 Qualité du signal GPS

Speed threshold
 Seuil de vitesse

Distance

Average speed
 Vitesse moyenne

Best speed
 Vitesse max

Session screen / Ecran de la session

Temperature (Celsius or Fahrenheit)
 Température (Celsius ou Fahrenheit)

Transition distance
 Distance de transition

Riding distance
 Distance de ride

Start/End session
 Lancer/stopper session

Session status
 Red = stopped
 Green = active
 Orange = pause
 Purple = course chrono

Status session
 Rouge = arrêt
 Vert = active
 Orange = pause
 Violet = chrono

Pause/resume session

Current ascent and descent
 Dénivelés positif et négatif

HR with color zone
 Zone de FC avec couleur



Third screen 1 (graphical screen)

Performance on Course (Third screen) / Performances sur Parcours (Troisième écran)

Cet écran se met en fonction lorsque vous concourez sur un parcours déjà enregistré, et sélectionné dans la liste de vos parcours

This screen shows up when you ride on a course already saved, and selected from the courses list

Current time over the best time achieved on this course

Chrono actuel par rapport au meilleur chrono réalisé sur ce parcours

Current average speed over the best speed reached on this course

Vitesse moyenne du parcours sur la meilleure vitesse réalisée sur ce parcours

Time (12/24 format)
Heure (format 12/24)

Current speed (in system device units)
Vitesse actuelle (unité définie par la montre)

Remaining distance to ride
Progression de la distance parcourue



Third screen 2 (graphical screen)

Geolocation / Go to the starting point of a Course (Third screen) Ecran de géolocalisation / se rendre au point de départ d'un parcours (Troisième écran)

Cet écran se met en fonction lorsque vous avez terminé de concourir sur un parcours

This screen shows up when you finish a ride on a course

Match this cursor with the black line to go back towards the GPS starting point of the current course

Alignez ce curseur avec la ligne noire pour retourner vers le point GPS de départ du parcours

Near (green) to far (red) from the GPS starting point

Proche (vert) à éloigné (rouge) du point GPS de départ

Angle between your bearing or heading and the GPS location of the starting point of the course

Angle entre votre cap ou orientation et la position GPS du point de départ du parcours

Distance left from the GPS starting point

Distance vous séparant du point GPS de départ



Fourth screen (chrono screen)

Course Chrono Screen / Ecran Chronos sur Parcours

No course is selected and no course chrono is active
Aucun parcours sélectionné et aucun chrono sur parcours



Green = GPS coords have been set for this course otherwise, it remains red
Vert = coord. GPS ont été récupérées sinon, c'est rouge

First chrono on the first course of the list
Premier chrono sur premier parcours de la liste



Distance of the course
Distance du parcours

Best scores of the course
Meilleurs scores du parcours

Chrono on course already known by the app
Chrono sur parcours déjà réalisé



Remaining distance
Distance restante

Best scores of the course
Meilleurs scores du parcours

Current scores of the course
Scores actuels du parcours

Statistical screen / Map screen (compatible devices) + Key functions

Ecran Statistiques / Statistical Screen

Total time over all the session
Temps total sur toutes les sessions

Total distance over all the session
Distance totale sur toutes les sessions

Best average speed ever
Meilleure vitesse moyenne

Best speed ever
Meilleure vitesse max

Total negative and positive gradient
Dénivelé négatif et positif total



Scroll up the different screens
Défile les différents écrans vers le haut

Long press = enter the menu
Appui long = entrée dans le menu

Scroll down the different screens
Défile les différents écrans vers le bas

Ecran Carte + Fonctions touches / Map Screen + Key functions

Launch the session
Ouvre le menu permettant de mettre en pause / relancer / sauvegarder / ignorer la session

Match this cursor with the black line to go back towards the GPS starting point of the current course
Alignez ce curseur avec la ligne noire pour retourner vers le point GPS de départ du parcours

Manually start / stop a chrono on a new course
Lance / stoppe manuellement un chrono sur un nouveau parcours



End of session screens

End session screen / Ecran de fin de session

Transition time
Durée périodes de transition

Riding time
Durée périodes de ride

Average speed
Vitesse moyenne

Best speed
Vitesse max

Transition distance
Distance de transition

Riding distance
Distance de ride

Current ascent and descent
Dénivelés positif et négatif



GPS Track saved to the FIT file

