Golf Frontier LLC

Golf Frontier GPS

Users Guide

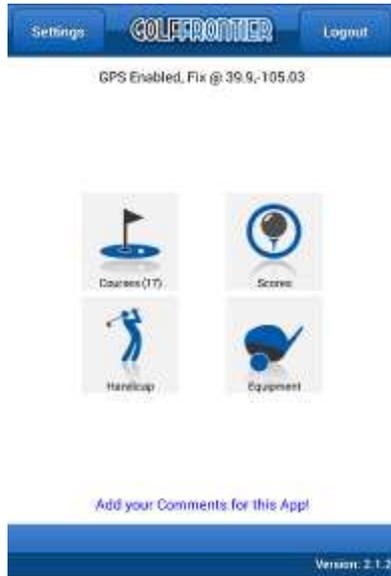Written by John Avram

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Introduction

Golf Frontier GPS (The Application) is a golf rangefinder application for Android and Windows Phone 7/8 devices. Golf Frontier GPS is much more then a typical GPS rangefinder. In addition to knowing the current distance to the green and hazards from anywhere on the course, you can now use Golf Frontier GPS to track scores, record statistics, and even calculate your handicap. It's the only golf application you will ever need!

With Golf Frontier GPS over 30,000 golf courses are currently available for download and more are being added every day.If a course is not already listed in the directory, then you can either create the map online at http://www.golffrontier.com using powerful online editing tools, or contact us at contact@golffrontier.com and we will map it for you. There is never any additional charge to map or download new courses. Features of The Application Include:

- Easy to understand screen of all features for the current hole with Carry and/or Reach distances clearly specified.
- Google/Bing Maps satellite view with detailed overlay information. Distance arcs drawn at 100, 150 and 200 yards/meters. Maps imagery is rotated to show the green at the top of the screen (Please note that the map view currently requires an active data connection).
- Painlessly get accurate approach and layup distances to and from any location in the map view using the adjustable targeting ring.
- Configurable scoring and statistic options. Track score, number of putts, fairways and greens in regulation. Additionally, track number of chip shots, first putt distance, sand saves and penalty strokes.
- Add details for each club in your bag, record the distance you hit each club, and then reference this information while playing. You can also record the drive and approach clubs used on every hole.
- Ability to track Drive Distance through the measurement tool, and include it with score submissions.
- Record Strokeplay or Matchplay rounds and calculate Stableford points.
- Automatically calculate current handicap. USGA, CONGU, EU and AGU (Australian Golf Association) Handicap Calculations are currently supported.
- Quickly and easily view an electronic scorecard of every round of golf you have played using the application, including a summary, statistics and comments for that round.
- View career statistics and get comprehensive golf game analysis online at http://www.golffrontier.com
- Auto-hole transition, when approaching the green for each hole, the GPS will automatically navigate to the next one.
- All distances displayed in either yards or meters.
- GPS sensitivity settings can be configured for the ideal accuracy and battery life setup on each device, including "most frequent" mode for ultimate accuracy.
- Quickly find new courses for download from the course library by searching via by course name, city and postal code or via nearest location.
- Golf Frontier GPS can conveniently be installed on the SD card (Android only).
- Multiple User Interface Themes: Default Look, Black Beauty and Monochrome (Android only). Golf Frontier GPS provides support for the following languages: Swedish, Spanish.

Getting Started

The Golf Frontier GPS application can be started by clicking on the Golf Frontier GPS Application Icon in Android, or the Golf Frontier GPS tile in Windows Phone. Once The Application has been started, users will see the home screen.

| Home Screen – Android | Home Screen – Windows Phone |

There are four main buttons (and two supporting buttons) on the home screen: Courses, Scores, Handicap and Equipment. All of the features within the application can be accessed from this screen.
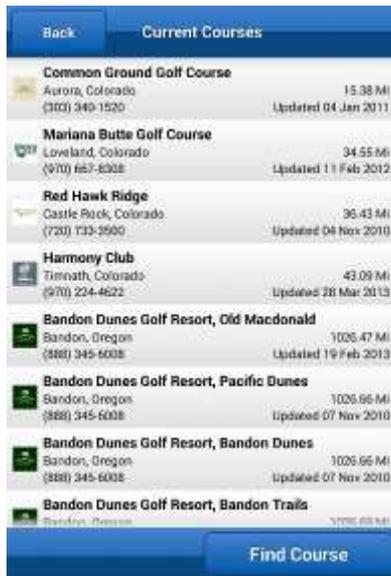
- **Courses** - Used to access the Course Library for The Application. The label also displays how many courses are currently downloaded.
- **Scores** - Shows a list of all scores for the user. To view scores, a user must have already logged into the app and have an active data connection.
- **Handicap** - Display the current handicap calculation for the user. To view handicap information, a user must be currently logged in and have an active data connection.
- **Equipment** - Provides an interface for the current user to be able to manage their equipment. In order to view Equipment, the user must be logged in.

In addition to the four main buttons, there are also two additional buttons at the top of the screen, Settings and Logout. The Settings button allows the user to change application specific settings, including the Measurement System used (Yards or Meters) and GPS Sensitivity. The Logout button will log the currently logged in user out of The Application.

Please Note, a user must be logged in to use the score tracking functionality, and an active data connection is required to initially log in.

Courses

The Courses screen displays the current library of courses that have been downloaded to the application. Everything that is needed to use the application as a GPS rangefinder is stored locally on the device once the course has been downloaded.

Current Courses - Android

Current Courses – Windows Phone

Tapping on one of the course entries (tap and hold for Windows Phone) will bring up an action menu for that specific course (the name of the course to act upon is displayed at the top of the menu). The following options are available:

Play Golf with Scoring – This option will take the user to the Add New Score screen, where the user will be able to choose the score settings for that round. A user must be logged into the application to use this option.

Play Golf without Scoring – This option will launch the GPS rangefinder for the selected course, with score tracking is disabled. A user does not need to be logged in to The Application to use this option.

View Details – Visit the web page for this course on GolfFrontier.com and view additional details about the course.

Call Course – Bring up the phone dialer with the number for the selected course ready to be dialed.

Get Directions – Use Google/Bing navigation to retrieve directions from the location that the device is currently positioned at to the selected course.

Remove from List – Remove the selected course from The Application's courses library.

The **Find Course** button is used to add new courses to the course library. New courses are downloaded individually from the Golf Frontier server. In order to download a new course, an active data connection is required. The Lite version of The Application is limited to a maximum of 5 course downloads.

There are two ways to search for courses, Nearest Location (which requires the GPS to be active) and Course Name, City or Post Code, which allows the user to key in in search terms to locate the desired course. If the GPS Radio is not active, or does not have a GPS lock, then the option for Nearest Location will not be displayed. For either way of searching, the results are limited to 25 courses. If more than 25 results are returned for a given search, only the first 25 results will be displayed.

On the search results page, tapping a specific course search result (or in Windows Phone, tap and hold), will bring up an Action Menu for that particular course:

Play Golf with Scoring – This option will download the course locally to the device, and transition directly to the Add New Score screen, where the user will be able to choose the score settings for that round.

Play Golf without Scoring – This option will download the course locally to the device, and launch the GPS rangefinder for the selected course, with this option score tracking is disabled. A user does not need to be logged in to the application to use this option.

Add to My Courses – This option will download the course locally to the device, and allow the user to continue searching for additional courses to download.

View Details – Visit the web page for this course on GolfFrontier.com and view additional details about the course.

Call Course – Bring up the phone application with the number for the course ready to be dialed.

Get Directions – Use Google/Bing navigation to retrieve directions from the location that the device is currently positioned at to the selected course.

Creating or Using an Existing Login

Whenever a new user first attempts to access a screen within the application that requires user information, they will automatically be prompted to log into the application as an existing user, or to create a new login. A login is required to add a new score, to view existing scores or the handicap calculation, and to manage equipment. If the user already has a login with Golf Frontier (available at http://www.golffrontier.com) then they can use that same account with the application, and everything will be synchronized across both the application and the website. If this is the user's first time with the application, then they will need to create a new login.

There are four fields that must be entered to complete the login creation process: Username, Password, Email and Handicap System. Once the login process has been completed, the application will maintain that user login permanently (or until the logoff button is clicked from the application home screen). A single login can be used with the Golf Frontier GPS application, and to access the user's profile on the Golf Frontier website, where additional scoring and game analysis functions are available to complement the application.

If you forget your login information, you can always recover your username and password from the Golf Frontier website at the following url: http://www.golffrontier.com/LostAccount.aspx

Add New Score

The Add New Score screen is for setting up the parameters that are used when tracking scores while playing a golf round with the Application. The process of adding a new score is broken up into multiple steps.

Choose a Tee - The Application will automatically download the current tee information from the Golf Frontier server whenever a new score is added. (If a data connection is not currently available, then a cached version of the tee information will be used). If there is not currently any tee information for the selected course, or if the tee information is not available for the tee that the user is playing, then an optional step to add a new tee is also available.

Prior to version 2.2, tee information was not cached with the course map data. If a user downloaded courses to their device prior to upgrading to version 2.2, they will need to have an active data connection the first time they try to add a score for that course.

Add a New Tee (Optional) - If the necessary tee information is not available for the selected course, a new tee can be created. When adding a new tee, the tee name as well as the Course Rating and Slope (for US) or the Standard Scratch Score (for UK) is needed at the start of the round.

Scoring Options – The scoring options step is where the user can select the number of holes played (9 holes, 18 holes, etc), the Type of Play (Stroke or Match), as well as some selections about the statistics that the user wishes to track for the given round (Record Equipment and Track Additional Statistics). The Record Equipment Used option allows the user to track the club that they used for the drive and approach shots for each hole. The Record Additional Statistics allows the user to track the following statistics for each hole: 1st Putt Distance, # of Chips, Sand Saves and Penalty Strokes.

Group Scoring - The group scoring step allows you to specify the names of additional players that you would like to keep score for during the round. You can keep score for a maximum of 4 players (including yourself). If you enter a players email address into the name field, at the conclusion of the round, Golf Frontier will send a scorecard of the round to them via email.

Group Scoring is currently only available in the Android Version of the app.

Once the scoring options have been selected, tapping the Start new Round button at the bottom of the screen will take the user directly to the main GPS screen. The Application is now ready to use.

GPS Screen

The GPS Screen is where all of the action happens within The Application. By default, the GPS Screen displays the Home View, which will show the current distance to the front, middle and back of the green for the hole that is currently selected. In addition to the Home View, there are three additional views for the GPS Screen which can be used with the app.

Hole Picker

The hole picker is a button that is located at the top of the GPS screen, the button displays the current hole that the GPS is on. When tracking score, the hole picker will also display the hole that you started on, so that you can differentiate between the hole you are currently playing, and the hole number as it is typically listed on the scorecard (this is useful for example if you start your round on the back 9).

Clicking the hole picker button will display a dialog which allows you to instantly select and navigate to any hole on the course. If using The Application to track scoring, the hole picker will not prompt for entry of the score from the previous hole.

GPS Accuracy

The numerical value in the top left corner of the GPS Screen represents the current accuracy of the GPS radio on the device. The number value is the amount of error that the GPS is currently experiencing. This means that the readings that the GPS currently provides could be off by this amount in either a positive or negative factor. Typically an acceptable amount of error for consumer grade GPS devices is 4 to 7 meters/yards. If this number is significantly higher than that, then there may be a problem with the quality of the GPS signal being received, or the frequency of location updates may need to be increased (which can be done within the Application Settings menu, see below).

Navigation Bar

For all views on the GPS Screen, a navigation bar is present at the bottom of the screen. The navigation bar consists of 4 buttons as well as a popup drawer which contains additional options. The four buttons perform the following functions in order from left to right.

- **Move Previous Hole** - Navigate from the current hole to the previous hole in the list. If the current hole is hole #1, then navigate to the last hole in the list.
- **Measure Distance** - Tap this button once to set your starting location. Tap the button a second time to calculate the distance from the starting location to where The Application is currently positioned. From here the user can decide whether to clear the measurement, or proceed to an additional location.
- **Change View** - Allows the user to toggle between the different Views within the GPS Screen, including the Home, List, Map and Equipment views.
- **Move Next Hole** - Navigate to the next hole in the list from the current hole. If the current hole is the last hole in the list, then navigate to the first hole (If score tracking is enabled, this may also cause the application to prompt the user to submit their score.

The popup drawer contains eight additional buttons that provide extra functionality. The first four buttons in the drawer allow the user to transition to any of the GPS views (Home, List, Map and Equipment). The following three buttons are only visible if score tracking has been enabled for the current round; the Edit Score button allows the user to modify the score and statistics for the current hole. The Scorecard button will show the current scorecard for the round. The Submit Score button will take the user to the Submit Score Screen. Finally, the Settings button allows the user to access The App's settings screen.

Home View

This is the default view for the GPS screen. To start, the view will show the distance to the Green, however using the + and – buttons to the left and right of the distances, the user can cycle between all of the features that are mapped for the current hole. Features can include bunkers, water hazards, tree, out of bounds and other significant course landmarks. For each feature some combination of (R)each and (C)arry distances are displayed. Note that the green is the only feature that will display (F)ront, (C)enter and (B)ack distances.

GPS Home View - Android   GPS Home View – Windows Phone

List View

This view will show distances to all mapped hazards (including the front, middle and back of the green) for the current hole at the same time. The list can be scrolled if there are more hazards than will fit on the list view at one time.

Map View

Map view will display a satellite image of the current hole, render an outline of the hole, and display distances to mapped hazards and the front, middle and back of the green. There are five buttons at the top of the map view (Hole, Drive, 150, 100 and Green) that can be used to quickly change between different map resolutions and zoom levels. The map view also supports the ability to quickly measure distance to any point on the map by manually positioning the targeting ring.

The targeting ring will always display the distance from the users current location to a specified point in the lower right hand corner of the map view (this is the bottom number). The distance from the targeting ring to the center of the green is also displayed in the lower right hand corner (this is the top number). Moving the targeting ring will immediately adjust the measurements displayed.

There are also zoom buttons that can be used to manually zoom the map in (+) or out (-) from the current view.

| GPS Map View – Android | GPS Map View – Windows Phone |

Please Note, Map View requires an active data connection to be able to download satellite imagery from the map provider.

Equipment View

This view displays equipment statistical information about how the user has performed previously on the current hole. In addition to displaying the current distance to the front, middle and back, this view will also display the distance that the user hits each club in their bag, as well as statistical information about the approach shot performance with the specified club. The statistical information displayed is the number of attempts, the greens in regulation percentage, the average score and the average first putt distance for that club on that hole.

GPS Equipment View – Android

GPS Equipment View – Windows Phone

When using The Application without score tracking, the Equipment View will not display any statistical information, it will only display the entered distance for each club.

Entering the Score for a Completed Hole

When score tracking is enabled, at the conclusion of each hole, the user will be prompted to enter their score and statistics for that hole. Each individual statistic (other than the score itself) can optionally be entered, and some screens that are part of the score tracking process may be hidden, depending on the options that were selected at the beginning of the round. Each statistic can be used as part of the Game Analysis process to make determinations about what aspects of the users game are adequate, and what parts could use improvement, so it is important to record as much information as possible.

Enter Score – Android

Enter Score –Windows Phone

There are three parts to the process for adding a new score, the first screen allows the user to enter in their score, number of putts, and whether they hit the fairway and green in regulation. There is also a box where the user can enter in their drive distance (or if they user the tape measure to mark their drive, this value will be populated automatically).

The second screen allows the user to track the clubs used for that hole. The user can select the club they used for their drive and approach shots. This screen will only appear if the user has previously selected their equipment from the equipment option on the Home Screen. Optionally, this option can be turned off completely when the user starts their round.

The third screen allows the user to enter in additional statistics about their performance on the current hole. The user can specify the length of their first putt, the number of chips, if they had a sand save attempt, and if they were successful, as well as the number of penalty strokes that they incurred. This screen is also optional, and can be turned off by deselecting the appropriate checkbox when the user begins their round.

The fourth screen allows the user to enter in additional scores for other players in the group. Group Scoring is available for each name/email address that was entered into the group scoring fields at the beginning of the round. For each additional player, The app can be used to track the players score and number of putts.

Group Scoring is currently only available in the Android Version of the app.

Submitting a Score

Once the user has completed their round, they will need to submit their score to the Golf Frontier server so that the score can be permanently added to their profile. This action requires that an active data connection be present. If at the time that the user is ready to submit their score, but no data connection is present, then they can exit the application, and submit the score at a later point in time.

The submit score screen validates that a score has been entered for every hole that was played. If any holes do not currently have a score provided, the screen will display a list of these holes. Clicking on any of the holes will navigate the user directly to the score entry screen for that hole. Once the user has completed the entry process, they will return to the Submit Score screen, where they will have an opportunity to address any other issues with the round in a similar manner.
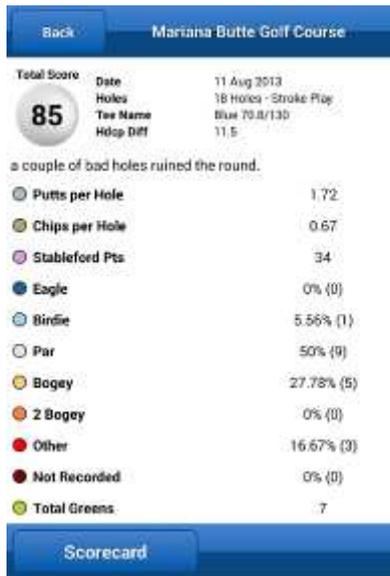
This screen also gives the user an opportunity to add any additional notes or details about their round to the score submitted. Additionally, the Scorecard button can be used to view the completed scorecard for the round before the score is submitted. After the score is submitted the user will be re-directed back to the home screen.

Scores

The Scores option will display a list of all of the scores that have been recorded for the currently logged in user. At the bottom of the screen, there are next and back buttons that allow the user to page through the results. 20 Results are displayed per page. Clicking on a score will display the score summary page for that score.

Score Summary

The Score summary displays summarized information for the selected score. This includes the location and date of play. Tee information, as well as handicap differentials and notes that were recorded as part of the score are also displayed. Finally, a summary of the following statistical information for that round is displayed as well: Putts per Hole, Chips per Hole, Eagles, Birdies, Pars, Bogeys, Double Bogeys, Other (Greater than Double Bogey), Total Greens (in Regulation), Total Fairways, Sand Save Percentage, Number of Up and Downs and Number of Penalty Shots.

Score Summary – Android   Score Summary – Windows Phone

Scorecard

The Scorecard displays a hole by hole breakdown of the round, just like a real scorecard. Each page of the scorecard displays the totals for nine holes (either the front or the back). The user can transition from one nine to the other by sliding the screen in the appropriate direction. The scorecard view can also be viewed from within the GPS Screen while in the middle of a round. It can be accessed via the scorecard button in the Navigation Bar popup drawer.

Scorecard – Android
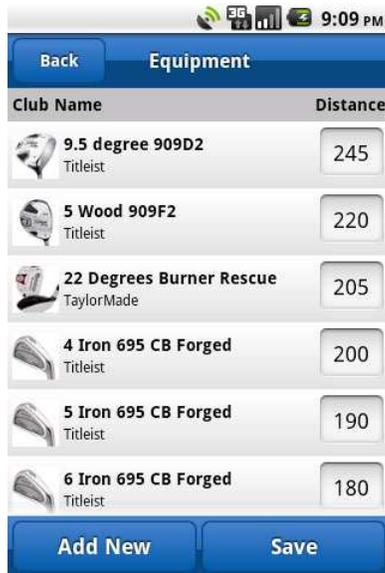

Scorecard – Windows Phone

Handicap

The Handicap screen displays the current handicap calculation for the current user. There are currently four different handicap calculations that are supported by The Application, United States, UK, Europe and Australia. The user must select a handicap calculation at the time they create their login. For Additional information regarding the handicap calculations, please visit the following URL: http://www.golffrontier.com/HandicapWalkthrough.aspx

Equipment

The equipment screen displays the equipment that the user has currently selected. This equipment is equivalent to the clubs that the user currently plays with during an actual round of golf. For each club that is selected, there is an input field that allows the user to enter in the distance on average that they hit a particular club.

Equipment –Android   Equipment – Windows Phone

Any changes that the user makes to their equipment must be saved before the changes will take effect. The Add New button can be used to add a new club or set of clubs to the user's current equipment list. When searching for new equipment, the user can select several search parameters to help narrow the results returned, these include the Equipment Name, the Manufacturer, and the Type of Equipment (Driver, Fairway Wood, Hybrid, Irons, Wedge and Putter).
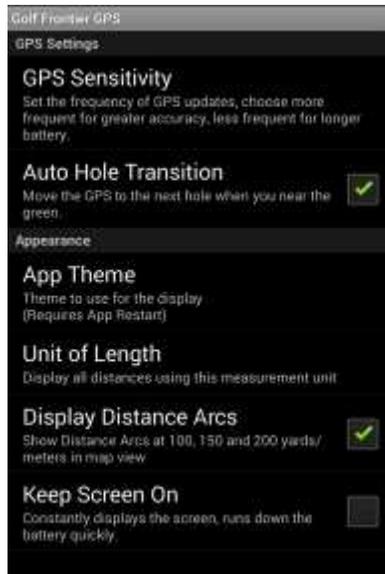
Once the specified search criteria have been selected, the results will be returned in a paged result set. Selecting a particular club from the search results by tapping it (tap and hold in Windows Phone), will bring up a prompt for the specific subtype of that club (club number or degrees loft). Multiple options can be selected at the same time, in order to add all clubs of a given type at the same time.

Once equipment has been added, it will then be available for recording statistics about it when using the score tracking feature. Additionally, the equipment will also show up in the Equipment View for the GPS Screen, along with the distance figure that the user provided.
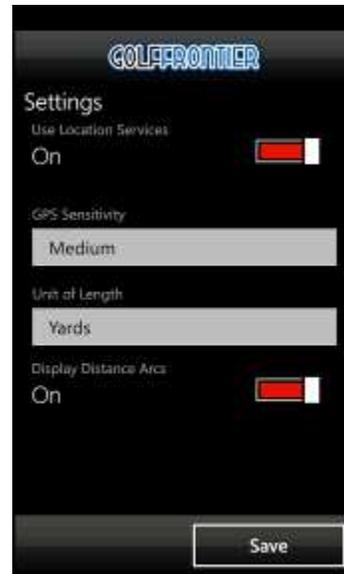
Clicking on a club in the equipment list will bring up a menu that allows you to edit the club description, as well as remove the club from your bag.

Settings

The Application Settings screen allows the user to configure the application to their specific tastes and preferences. The following settings are available:

| Settings – Android | Settings – Windows Phone |

User Location Services (Windows Phone Only) - Allows the user to turn the GPS on or off directly from within the application.

GPS Sensitivity - Controls the rate at which the GPS radio polls for changes to the current location. By default GPS Sensitivity is set to "Frequent" which polls for location changes about every 3 seconds. The more frequent the sensitivity settings, the more battery power that is consumed, so it is important to select the best setting for the device that is being used.

Auto Hole Transition (Android Only)– Instructs the app to automatically move to the next hole whenever it reaches within 35 yards/meters of the center of the current green. If this option is used with score tracking enabled then the user will be prompted to enter their score for the current hole.

App Theme (Android Only) – Allows the user to change the appearance of UI elements within the application, currently, there are 3 themes that can be selected: Default, Black Beauty and Old School. A restart of the application is always required when the user changes the app theme.

Unit of Length – Determines if The Application displays distances in Yards or Meters.

Display Distance Arcs – Draws red, white and blue arcs on the Map view of the GPS screen for each hole. The arcs are placed at 100, 150 and 200 yards/meters from the center of the green.

Keep Screen On (Android Only) – Disables the default screen timeout, the screen can only be turned off via the power button.