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(54) **ATHLETIC MONITORING SYSTEM AND METHOD**

(75) Inventor: **Russell W. White**, Austin, TX (US)

(73) Assignee: **Affinity Labs of Texas, LLC**, Austin, TX (US)

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H04B 7/00 (2006.01)

(52) **U.S. Cl.** **455/41.2**; 455/41.1; 455/550.1; 455/553.1; 455/69; 455/78; 600/300; 600/309; 600/316; 600/365; 600/483

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See application file for complete search history.

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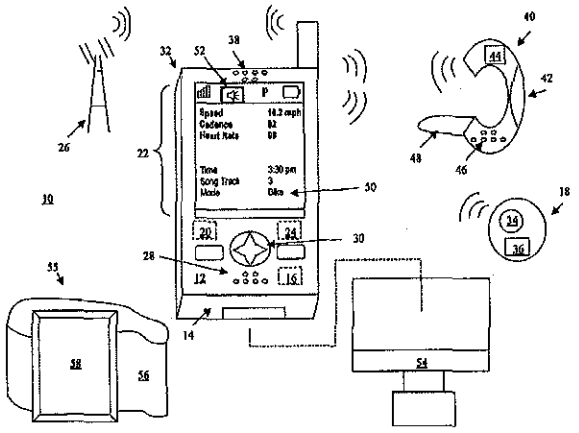
(57) **ABSTRACT**

A system and method are disclosed for monitoring the athletic performance of a user while also providing the user with entertainment such as an outputting of music. A system that incorporates teachings of the present disclosure may include, for example, a housing component at least partially defining an enclosure. A performance engine may be located within the enclosure and may utilize a signal from a motion sensor to generate a performance metric like current speed, distance traveled, or cadence. The system may also include an audio and/or a visual output mechanism such as a speaker assembly or a display device. The output mechanism may be capable of presenting the performance metric to a user.

42 Claims, 3 Drawing Sheets



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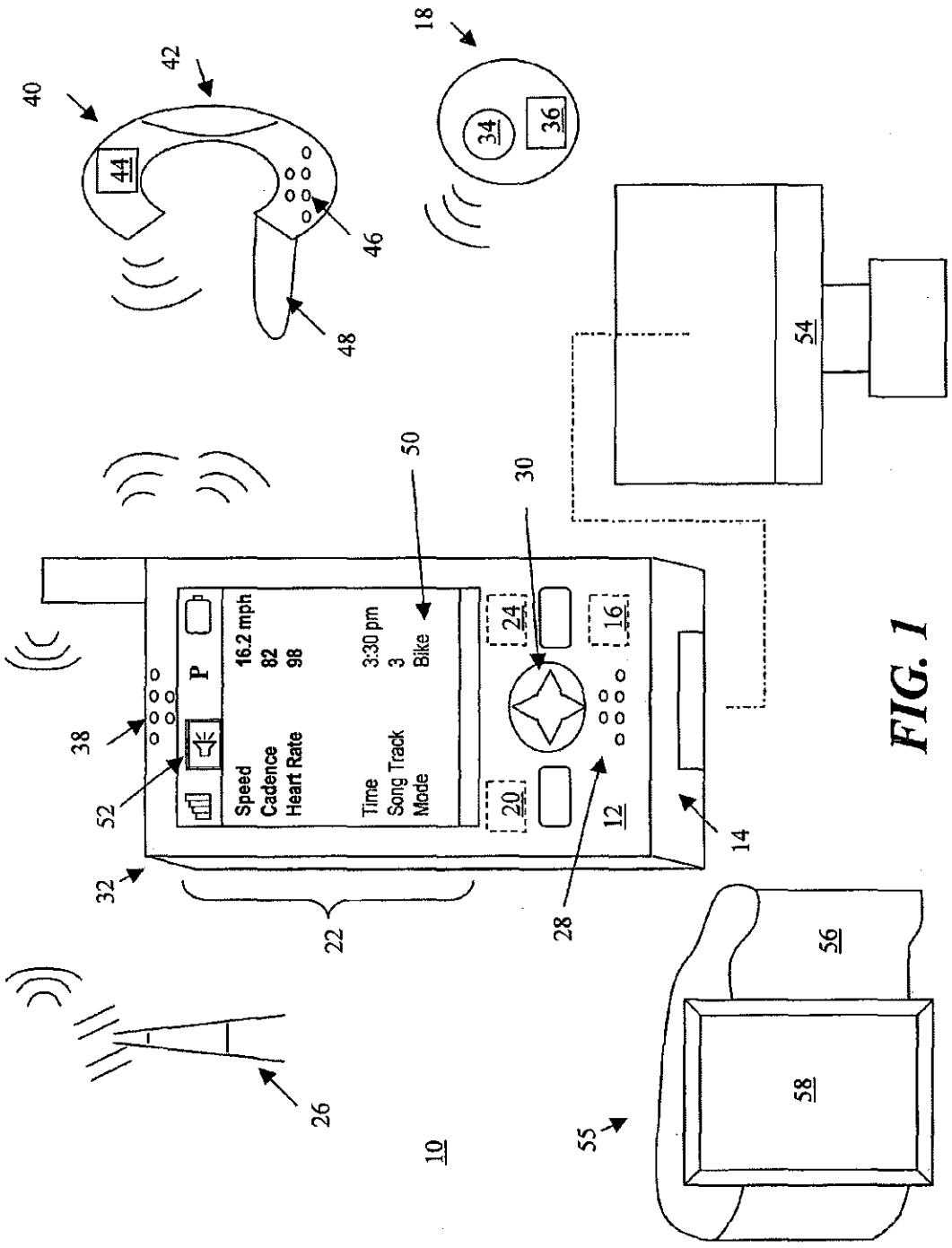
40
42
44
46
48
18
34
36
54
50
30
Speed
Cadence
Heart Rate
16.2 mph
82
98
Time
Song Track
Mode
3:30 pm
3
Bike
P
38
52
32
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FIG. 1

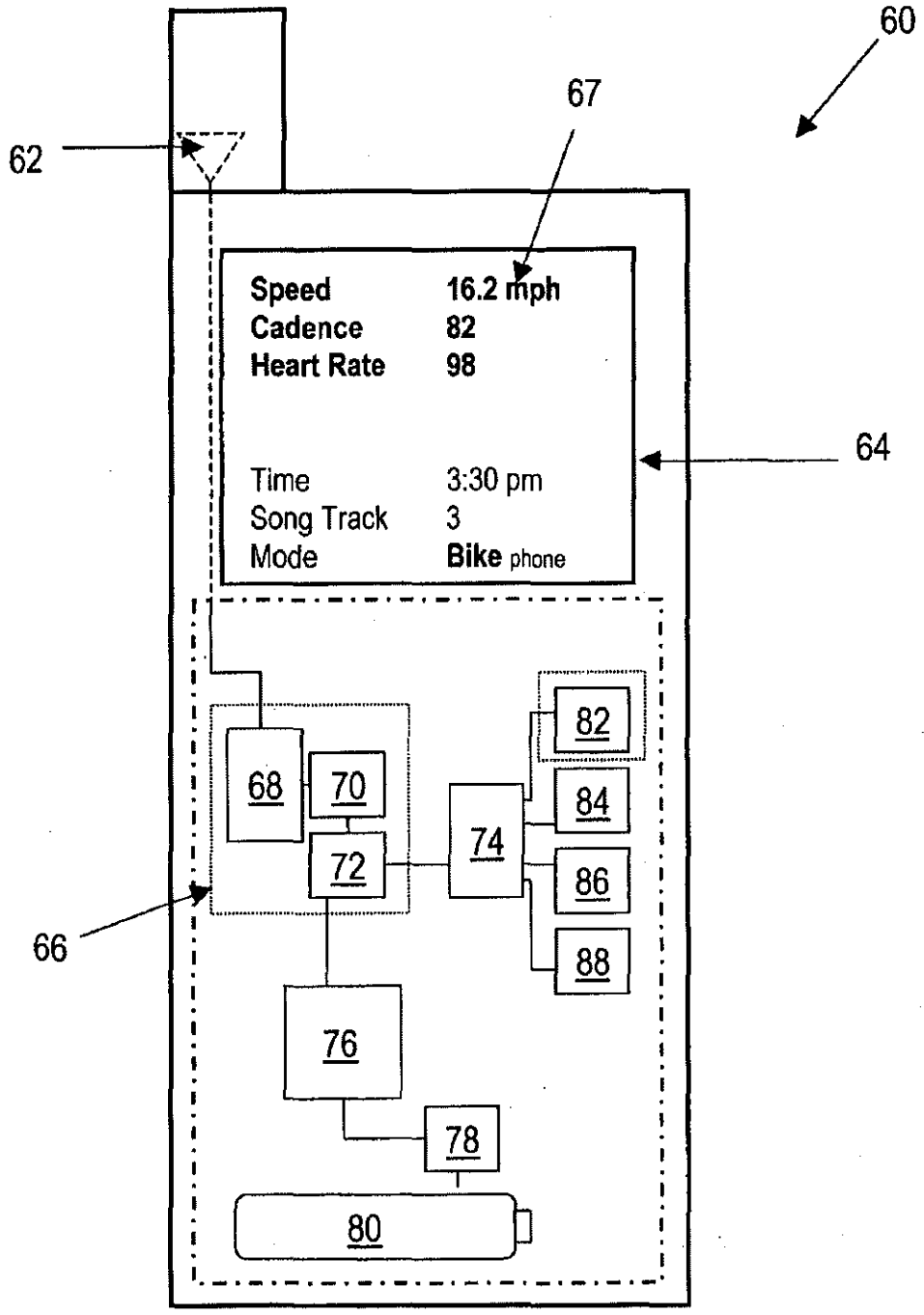
60
67
62
Speed 16.2 mph
Cadence 82
Heart Rate 98
Time 3:30 pm
Song Track 3
Mode Bike phone
64
68
70
72
74
82
84
86
88
66
76
78
80

FIG. 2

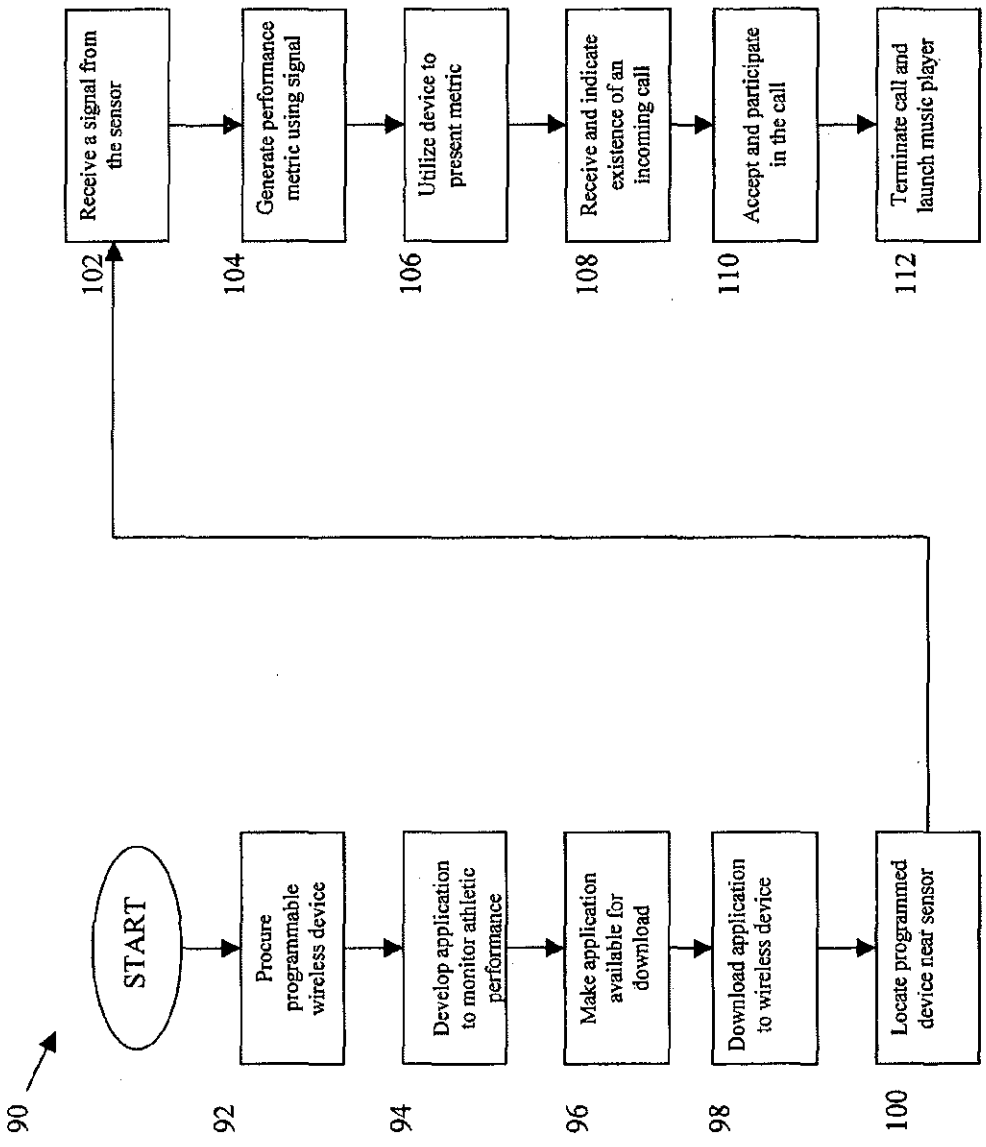
90
START
92
Procure programmable wireless device
94
Develop application to monitor athletic performance
96
Make application available for download
98
Download application to wireless device
100
Locate programmed device near sensor
102
Receive a signal from the sensor
104
Generate performance metric using signal
106
Utilize device to present metric
108
Receive and indicate existence of an incoming call
110
Accept and participate in the call
112
Terminate call and launch music player

FIG. 3

ATHLETIC MONITORING SYSTEM AND METHOD

CROSS REFERENCE TO RELATED APPLICATION

This is a continuation application of U.S. patent application Ser. No. 10/917,065, filed on Aug. 12, 2004, now U.S. Pat. No. 7,062,225, issued on Jun. 13, 2006, which is a continuation application of U.S. patent application Ser. No. 10/794,137, filed on Mar. 5, 2004, now abandoned, the contents of both are expressly incorporated herein by reference in their entirety.

FIELD OF THE INVENTION

The present disclosure relates generally to athletic equipment, and more particularly, to a system and method for monitoring the athletic performance of a user while simultaneously entertaining the user.

BACKGROUND

Many athletes attempt to track their performance. For example, runners often want to know how far and how quickly they have run. Bicyclists often want to know how quickly they are peddling. In some situation, bicyclists make use of bicycle computers that act as speedometers, odometers, and cadence counters. These devices typically receive information from sensors mounted with respect to the moving elements of a bicycle and convert this information into a bike speed value or some other desired metric. Many of these conventional bicycle computers are special purpose devices that have a display and are fixed to the handlebars of a bicycle to allow a rider to view displayed information while riding.

In addition to the bicycle-related information mentioned above—namely speed, distance, and cadence—some conventional bicycle computers and pedometers may also display the current time and/or heart rate information for the rider or runner. While these conventional systems represent a nice option for many, these systems have several shortcomings.

BRIEF DESCRIPTION OF THE DRAWINGS

It will be appreciated that for simplicity and clarity of illustration, elements illustrated in the Figures have not necessarily been drawn to scale. For example, the dimensions of some of the elements are exaggerated relative to other elements. Embodiments incorporating teachings of the present disclosure are shown and described with respect to the drawings presented herein, in which:

FIG. 1 shows one embodiment of a cycling information system that incorporates teachings of the present disclosure;

FIG. 2 illustrates a cut away view of a cellular telephone incorporating teachings of the present disclosure in order to act as a computing device for monitoring athletic activity; and

FIG. 3 presents a flow diagram for a cycling performance tracking process incorporating teachings of the present disclosure.

DETAILED DESCRIPTION OF THE DRAWINGS

Embodiments discussed below describe, in part, different approaches for monitoring athletic performance. Though many of the embodiments discussed below focus on systems in which the athletic performance includes bicycling, other activities may also be monitored in accordance with the teachings disclosed herein. For example, runners may benefit from the systems and processes described below. A runner and/or walker may employ the teachings disclosed herein to provide an improved pedometer that may, for example, display steps taken, provide customized distance and calories burned calculations, and include time/date information and/or a stopwatch feature. In some cases, a pedometer may show personalized distance covered and calories burned information, which may have been calculated by taking into account a user's stride length and/or weight.

In several embodiments, a computing device is used as part of the monitoring system, and this computing device is described as having wide area wireless communication functionality. For example, the device may be capable of acting as a cellular telephone or some other wireless communication device, including, for example, other telephonic devices, smart telephones, personal digital assistants (PDA's), or Blackberry™-like electronic mail devices. Including some wide area communication capability in performance tracking computing devices may provide athletes with a cost effective and convenient way to protect themselves.

As mentioned above, cycling is an example of an athletic activity that may be monitored. In practice, prudent cyclists may elect to carry a wireless telephone with them while cycling. If a tire goes flat, if the cyclist has or witnesses an accident, and/or if someone needs to get a hold of the cyclist, the wireless telephone may prove invaluable. Such a prudent cyclist may elect to carry the telephone in a pocket located on the back of his or her cycling jersey or a catch-all bag located on the seat post under the saddle. Many cyclists consider either location to be sub-optimal. Carrying the phone in the jersey pocket may be annoying and may make it difficult to know if someone is calling. While using a catch-all bag may remove some of the annoyance, it may also make it even more difficult to know if someone is calling.

Many of the same cyclists that bring a telephone with them on long rides may also have a bicycle computer fixed to the handlebars of their bike. The cyclist may have paid hundreds of dollars for the telephone and hundreds of dollars for the computer. And, by fixing the computer to the bicycle, the cyclist may unwittingly enhance the likelihood that the computer is stolen. If, for example, the cyclist leaves the bicycle unattended for some period of time, the cyclist may return to find the computer missing.

By employing the teachings disclosed herein, cyclists may able to choose a bike computer that has wide area wireless communication capabilities. In some embodiments, the bicycle computers may actually be embodied in cellular telephones or other wireless communication devices. For example, a system incorporating teachings of the present disclosure may provide a cradle securable to a bicycle and capable of releasably coupling with a wireless telephone that has bicycle computer capabilities. The cradle may provide a better place for carrying a telephone while cycling. The cradle may also make it easier for cyclists to leave their bike unattended without fear of having their bicycle computer stolen. Cyclists may simply disengage their telephones from the cradle and take the phones with them.

In some embodiments, the cradle may also be capable of triggering the telephone to switch into a bike computer mode and further capable of facilitating communication of bike information from a sensor to the telephone. For example, the cradle may be physically connected or wired to one or more sensors tracking the movement of a bicycle component. By cradling the telephone, the information communicated from sensors to the cradle may be passed along to a processor in the

telephone. In addition to the many above-referenced advantages, incorporating communication capabilities into a bicycle computer may also save the cyclists money—they no longer need both a computer and a telephone.

As mentioned above, FIG. **1** shows one embodiment of a cycling information system **10** that incorporates teachings of the present disclosure. As depicted, system **10** may include, for example, a housing component **12** at least partially defining an enclosure **14**. A local area wireless transceiver **16** capable of receiving a signal from a sensor **18** coupled to a bicycle (not shown) may be located within enclosure **14**. A performance engine **20** may also be located within enclosure **14** and may be communicatively coupled to local area wireless transceiver **16**. In operation, performance engine **20** may utilize a signal from sensor **18** to generate a performance metric like current speed, distance traveled, or cadence.

To facilitate communication of performance metric information to a user, system **10** may also include an output mechanism such as display device **22** associated with the housing component. An output mechanism like display device **22** may be capable of presenting the performance metric to a user. In preferred embodiments, the system may also include a wide area wireless transceiver **24** located within enclosure **14**. Wide area wireless transceiver **24** may allow the user to send and receive information across a geographically disperse network such as a cellular telephone network. In operation, a user may want to place a telephone call and may use transceiver **24** to "connect" to a cellular network node **26**. This "connection" may involve Radio Frequency (RF) communication that complies with some wide-area RF technology like CDMA, GPRS, EDGE, or 3GSM.

Whatever the form factor of the computing device, a user may want the device to be rugged. A typical cellular telephone, for example, may not handle the abuse generated while running, cycling, and/or performing some other activity. As such, a cellular telephone incorporating teachings of the present disclosure may enjoy a more rugged and/or water resistant design. Additionally, a user may desire to interact with the device and may do so using one or more of several types of input mechanisms including, for example, a microphone **28**, a touch screen, keypad, and toggle disks **30**. In operation, a microphone assembly **28** associated with computing device **32** may be capable of receiving voice commands, a mouse mechanism (not shown) may allow a user to point and click icons on a display screen, and/or a touch screen may facilitate receiving inputs from a stylus.

Depending on implementation detail, computing device **32** may have any of several components located within enclosure **14**. For example, computing device **32** may include a microprocessor and a memory located within its cavity. In some embodiments, the memory may hold an application that embodies the performance engine and converts information received via one or more remote sensors like sensor **18** into a performance metric like speed, distance, cadence, etc. As shown, sensor **18** may include a pick-up **34** that "recognizes" movement of a bicycle component. Pick-up **34** may be tracking wheel revolutions, crank revolutions, front and/or rear derailer motion, bike and/or body tipping, and/or some combination thereof. The tracking mechanism of pick-up **34** may take several forms. It may be optical, magnetic, mechanical, etc. To facilitate presentation of performance metric information to the user, sensor **18** may include a local area wireless communication module **36**, which may make use, for example, of Bluetooth technology. Sensor **18** may also rely on wired connections in addition and/or in lieu of wireless connections to communicate with device **32**.

As mentioned above, a bicycle computer like computing device **32** may include any of several different components. For example, it may have a wireless wide area transceiver **24**, which may be part of a multi-device platform for communicating data using RF technology across a large geographic area. The platform may be a GPRS, EDGE, or 3GSM platform, for example, and may include multiple integrated circuit (IC) devices or a single IC device. Similarly, bicycle computer **32** may have a wireless local area transceiver **16**, which may communicate using spread-spectrum radio waves in a 2.4 GHz range, 5 GHz range, or other suitable range. Wireless local area transceiver **16** may also be part of a multi-device or single device platform and may facilitate communication of data using low-power RF technology across a smaller geographic area.

For example, if wireless local area transceiver **16** includes a Bluetooth transceiver, the transceiver may have a communication range having approximately a one hundred foot radius. If the wireless local area transceiver includes an 802.11(x) transceiver, such as an 802.11(b) or Wi-Fi transceiver, the transceiver may have a communication range having approximately a one thousand foot radius.

One skilled in the art will also recognize that wireless local area transceiver **16** and wireless wide area transceiver **24** may be separate or part of the same chipset. For example, a bike computer chipset may package a Bluetooth, an 802.11(b), and a GSM cellular technology, like GPRS, into a single chipset. In many embodiments, the bike computer may also include display device **22**, which may be operable to present a graphical user interface (GUI) to a user. In an embodiment where the bike computer can also operate as a telephone, the telephone may include a speaker assembly **38**. The telephone may also be executing a local software application to allow the telephone to receive an input indicating a desire to toggle from a telephone mode to a bike computer mode. In such an embodiment, the bike computer may include a computer-readable medium having computer-readable data to direct a wireless telephone processor to receive a signal from a sensor indicating some physical activity, to utilize the signal to generate a performance metric, and to initiate presentation of a rendering of the performance metric on a display device.

In some embodiments, a bike computer like device **32** may include a global positioning system (GPS) component that facilitates location-based and tracking functionality. Device **32** may also include a Bluetooth module that sniffs for other Bluetooth-enabled devices. This sniffing may allow device **32** to "find" sensor **18**. It may also allow device **32** to find headset **40**. If device **32** recognizes a headset or athletic activity sensor as a Bluetooth-enabled device, device **32** may engage in a process to "pair" with the identified device(s).

In an embodiment that includes a headset like headset **40**, it may be advantageous to enhance computing device **32** by adding a built in audio player capable of playing a playable file format like .WAV, MP3, MIDI, .AU, and/or some other format. As such, a cyclist or other athlete may be able to listen to music via headset **40** while performing. In practice, device **32** may be simultaneously functioning: as a bike computer—displaying information like speed and cadence; as an MP3 player—outputting music or other audio signals to the user; and, as a wireless communication device—providing the user with the ability to send and receive information.

In practice, headset **40** may include a battery **42**, wireless transceiver **44**, a speaker assembly **46**, and a microphone assembly **48**. Though system **10** includes a device **32** with a display **22**, which facilitates the communication of performance information to the user, some systems may elect to enhance and/or replace the visual presentation approach with

an audible or speech based interface. As such, a user may be able to "ask" device **32** a question by speaking into microphone assembly **48**. For example, a user may ask "what is my current cadence?", and device **32** may respond with "your cadence is **82**."

Such features may simplify operation of a device like device **32**. Additional ease of use may be added by including various GUI icons on display **22**. For example, GUI icon **50** may be used to indicate that device **32** is in bike computer mode, and GUI icon **52** may be used to indicate that device **32** has recognized the existence of an incoming call. As such, a user listening to music from device **32** on headset **40** may have the option of pausing the music and answering the telephone call.

Though described above in a cycling application where device **32** can be cradled in cradle **54**, device **32** may also be used by runners and other sport enthusiasts. Device **32** may receive and/or generate a signal indicating that a step has been taken by a user and convert this signal into a presentable sport's metric. Occasionally, a user may not want to utilize cradle **54**. The user may want some level of flexibility in locating device **32**. A user may, for example, want to secure device **32** to an arm with a mounting system **55**, which may include an elastic strap **56** and a rubberized device holder portion **58**. The strap and holder portion may be formed of other materials and may include some clasping mechanism. In some embodiments, device **32** may have some sensitivity to moisture, and the mounting portion may surround device **32**—insulating device **32** from contacting the user's skin, while providing sufficient support and access to some or all of the Input/Output mechanisms of device **32**.

As described above, device **32** may operate as a bicycle computer, an MP3 player, and a cellular telephone. As such, device **32** may be very attractive to an avid cyclist. If the cyclist elects to take up running or begins training for a triathlon, the cyclist may want device **32** to be expandable—to be capable of accepting new and/or different performance monitoring functions or modules. The cyclist turned triathlete may now want device **32** to operate as a pedometer. The cyclist may also want to add other useful features to device **32**. For example, a cyclist may want device **32** to act as a garage door opener. If the cyclist begins a ride from home and stores her bicycle in the garage, the cyclist may want to close the garage door behind her. As such, the cyclist may want device **32** to act as a garage door remote—communicating an open and/or close RF signal to a garage door opener.

As mentioned above, bike computer **32** may include or be capable of executing software applications, which may be coded, for example, as a BREW application or a Java application. In some embodiments, the bike computer functionality may be implemented by a Java application that was downloaded over the air and may be executing on a computing device's operating system (OS), which may be a Symbian OS, Pocket PC, Linux-based, a Palm OS, or other suitable computing device OS.

As an example of one potential application/OS combination, a developer may decide to develop a Java-based bike computer application for a Symbian OS-based computing device, which may be a cellular telephone or smart phone. The process of developing a Java application for the Symbian platform may include three main steps: (1) developing the Java code and supporting files, sound graphics, etc. which may, in some cases, be tested on an emulator; (2) creating the files to deploy the application to a Symbian interface so that it has a GUI icon and can be run from a native interface; and (3) packaging the application elements in a release file.

As indicated above, smart client applications may be written in Java and run on a wide range of devices. For a smart client application with Java on the client device, there may be two preferred options of Java platforms: Java 2 Standard Edition (J2SE) and Java 2 Micro Edition (J2ME). Applications based on J2SE are often standalone Java applications, usually using Personal Java. Personal Java is a subset of J2SE with a smaller Java Runtime Environment (JRE) suitable for the limited storage capacity of hand-held computing devices. Java Virtual Machines (JVMs) based on J2SE may be available for a wide variety of client devices including Pocket PC, Symbian OS, Linux and Palm OS devices.

In some embodiments, a bike computer file or application may be based on a smaller version of the java platform, like MIDP, which may be better for small footprint devices like cellular handsets. Java applications that run on MIDP devices are called MIDlets, and a MIDlet suite is a grouping of MIDlets that can share resources at runtime. A suite usually includes at least two separate files. The first may be a Java Application Descriptor (JAD), which may be a file that tells the Application Management Software (AMS), the piece of software on the hardware responsible for managing J2ME applications, how to handle the controller application. The JAD file may provide instructions for, among other things, installation, identification, and retrieval. The second may be a Java Archive (JAR), which may be a collection of the controller application's compiled byte classes, resources, and manifest files.

Occasionally and as mentioned above, a user may have an existing cellular telephone and may want to download a bike computer application capable of "turning" the cell phone into a bike computer. This application may, in some cases, be downloadable Over The Air (OTA) from a Web server-like environment. As such, users may be able to "HTTP" their way to the URL where the JAD file resides. In such embodiments, a computing device-side browser may download the bike computer application into the Applications folder and test it.

A more detailed picture of a wireless enabled device **60** that may be operable as a bicycle computer is shown in FIG. **2**. As described above in the brief description of the figures, FIG. **2** depicts a cut away view of a cellular telephone incorporating teachings of the present disclosure in order to act as a computing device for monitoring athletic activity. To operate as an athletic monitor, telephone **60** may be a ruggedized phone designed for athletes. It may have better water resistant capabilities and handle impacts and jostling better than other telephones. Telephone **60** may have a clam-shell design or a "candy bar" design as shown. Though not shown in FIG. **2**, telephone **60** may also include special branding and/or markings to indicate that it is an "Athlete" phone. For example, a cellular telephone manufacturer may elect to place an Ironman™ logo on the phone or some other appropriate logo to let user's know that the phone is athlete-ready or capable of operating in a performance monitoring mode.

In the depicted embodiment, telephone **60** includes several integrated circuits on a circuit board, an antenna **62**, and a liquid crystal display **64** presenting a bicycle computer display image **67**. The components of telephone **60** could include any of several combinations of components. As depicted, telephone **60** includes a wide area wireless platform **66**, which may be, for example, a GPRS and/or CDMA module. As shown, platform **66** includes a wide area wireless transceiver **68**, front end circuitry **70**, and dual core processor **72**. Front end circuitry **70** may help ensure that the baseband electronics will work well with transceiver **68**. Dual core processor **72** may include, for example, a Digital Signal Processing (DSP) core as well as RISC or ARM capabilities. In

some embodiments, the components of telephone **60** may use dedicated hardware and DSP firmware to help provide advanced functionality.

Platform **60** may be communicatively coupled to an application engine **74**, which could be, for example, a Dragonball processor, and a power circuit **76**, which may manage among other things a battery circuit **78**. In some embodiments, battery circuit **78** may keep track of the power available from battery **80**. Application engine **74** may be communicatively coupled to several different components and may provide those components with additional processing capabilities. Example components may include a local area RF transceiver **82**, which may be Bluetooth-enabled, Wi-Fi enabled, etc. Other components might be an image sensor **84**, memory module **86**, and peripheral controller **88**, which may manage keypad, LCD, CODEC, IrDA, and other functionality. One skilled in the art will recognize that the many of the above described components could be combined or broken out into other combinations and that the memory could include onboard and added memory components including RAM, Flash, smart media, and others.

As mentioned above, FIG. **3** presents a flow diagram for a cycling performance tracking process **90** incorporating teachings of the present disclosure. At step **92**, a manufacturer, programmer, and/or user may procure a programmable wireless device. An application for monitoring athletic performance may be developed at step **94**. The athletic performance may include cycling, running, swimming, lifting, etc. In some embodiments, the application may be made available, at step **96**, for download from the Public Internet, over the air via a wireless network, from a local computer, or in some other manner.

At step **98**, the application may be loaded on the wireless device, and the wireless device may be located at step **100** proximate an activity sensor capable of communicating a signal indicating some activity. At step **102**, the device may receive a signal form the proximate sensor. In preferred embodiments, the sensor and the device may be part of a piconet. In some embodiments, the sensor may actually be a part of the device.

At step **104**, the device may utilize the developed application to generate a performance metric from the sensor signal. The performance metric may be presented to the user at step **106**. The presentation may be graphical in nature and may make use of a display associated with the wireless device. The presentation could also be auditory in nature and spoken or played to the user.

In some embodiments, the device may include a memory and may save some portion of the performance metric data in that memory. And, the saved data may be retrievable by a different device. For example, a user may have a computer at home capable of retrieving the performance metric data either directly and/or indirectly from the device. Indirect retrieval may involve, for example, utilizing the Public Internet to retrieve the information. Depending on implementation detail, the performance tracking device may communicate the saved metric data as an attachment to an electronic mail message.

For example, if the device is operable as a smartphone and capable of communicating voice calls and data calls, a user of the device may elect to share the metric data with a friend and/or other device via a wide area cellular network using. In some cases, the performance metric data may include GPS and/or other location identifying data. As such, the user may be able to generate a visual and plotted representation of the tracked performance. A software application may take the performance metric information and associated GPS information as an input and output a map that displays a performance route and performance metric information for various points along the route. In some cases, the performance metric information and associated GPS information may actually be converted into an animated sequence by an animator application. As such, the user may be capable of "watching" her performance.

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At step **108**, the wireless device may receive an indication of an incoming telephone call or data call. The device may indicate the existence of this call to the user, and the user may elect to accept and/or participate in the call at step **110**. As mentioned above, the call may be a voice call or a data call. The call may take the form, for example, of an email, a telephone call, an Instant Messaging message, a Short Messaging Service message, a Multimedia Messaging Service message, some other form, and/or a combination thereof.

Whatever the messaging form, the user may elect not to accept the message or may complete his or her interaction with the message. As such, the user may terminate the call at step **112** and resume use of the performance monitoring application and/or launch a different application like an MP3 player.

In various embodiments, the telephones, computers, devices, and/or engines, described above, may take forms including wireless and cordless phones, personal digital assistants, cellular telephones, mobile telephones, laptop computers, hardware, firmware, software, other options having some level of computing capability, and/or a combination thereof.

The methods and systems described herein provide for an adaptable implementation. Although certain embodiments have been described using specific examples, it will be apparent to those skilled in the art that the invention is not limited to these few examples. Note also, that although certain illustrative embodiments have been shown and described in detail herein, along with certain variants thereof, many other varied embodiments may be constructed by those skilled in the art.

The benefits, advantages, solutions to problems, and any element(s) that may cause any benefit, advantage, or solution to occur or become more pronounced are not to be construed

as a critical, required, or essential feature or element of the present invention. Accordingly, the present invention is not intended to be limited to the specific form set forth herein, but on the contrary, it is intended to cover such alternatives, modifications, and equivalents, as can be reasonably included within the spirit and scope of the invention as provided by the claims below.

What is claimed is:

1. A performance monitoring system comprising:

a housing component at least partially defining an enclosure;

a memory located at least partially within the enclosure;

a set of performance engine instructions stored in the memory and configured to utilize a signal from a motion sensor to generate a first performance metric and a second performance metric;

an audio file player located within the enclosure;

an audio output device configured to output a first audio output signal representing an audio file played by the audio file player and a second audio output signal representing a spoken reporting of the first performance metric and the second performance metric, the second audio output signal output responsive to a user request; and

a wide area wireless transceiver located within the enclosure and operable to receive an incoming telephone call, wherein the audio output device is operable to indicate the existence of the incoming telephone call and to pause the first audio output signal in connection with an answering of the incoming telephone call.

2. The system of claim 1, further comprising a cradle formed to receive the housing component, the cradle comprising a coupling mechanism formed to mount the cradle to a bicycle.

3. The system of claim 2, further comprising a bicycle motion sensor that is the motion sensor, wherein the bicycle motion sensor is operable to communicate the signal across an interface selected from a group consisting of a wired interface and a wireless interface.

4. The system of claim 1, wherein an MP3 player comprises the housing component, the memory, and a display device operable to present a graphical representation of the first performance metric to the user.

5. The system of claim 1, further comprising a local area wireless transceiver configured to be attached at the housing component, wherein the local area wireless transceiver is operable to communicate information in a frequency range greater than 2.3GHz.

6. The system of claim 1, wherein the first performance metric and the second performance metric are each selected from a group consisting of a cadence metric, a speed metric, a heart rate performance metric, a time metric, a calories burned metric, and a distance metric and farther wherein the system utilizes a GPS device to sense movement.

7. The system of claim 1, further comprising a local area wireless transceiver and a heart rate sensor operable to communicate heart rate information for the user to the local area wireless transceiver, wherein the set of performance engine instructions are further operable to utilize the heart rate information to generate a heart rate performance metric.

8. The system of claim 1, farther comprising a DSP core, wherein the audio file player is operable to play a file format selected from the group consisting of an MP3 file, a .WAV file, a MIDI file, and an .AU file.

9. The system of claim 1, wherein at least some of the performance engine instructions are embodied in firmware, further wherein at least some of the memory is embodied in flash memory.

10. The system of claim 1, further comprising a speaker assembly operable to communicatively couple with the audio output device.

11. A method of athletic performance monitoring, comprising:

(a) receiving a collection of performance metric information from a device storing the collection, wherein the device comprises:

a housing component at least partially defining an enclosure;

a memory located at least partially within the enclosure;

a set of performance engine instructions stored in the memory and configured to utilize a signal from a motion sensor to generate a first performance metric and a second performance metric;

an audio file player located within the enclosure;

an audio output device configured to output a first audio output signal representing an audio file played by the audio file player and a second audio output signal representing a spoken reporting of the first performance metric and the second performance metric; and

a wide area wireless transceiver operable to receive an incoming telephone call, and wherein the device is operable to indicate the existence of the incoming telephone call and to pause the first audio output signal in connection with an answering of the incoming telephone call; and

(b) generating a viewable representation of the collection.

12. The method of claim 11, wherein the collection of performance metric information represents a tracked athletic performance, further wherein the tracked athletic performance is selected from a group consisting of a run, a walk, a swim, and a bicycle ride.

13. The method of claim 11, wherein the collection of performance metric information is indirectly received from the device, further wherein the indirect receipt comprises at least one communication via the Public Internet.

14. The method of claim 11, further comprising making the viewable representation of the collection available via a wide area network.

15. The method of claim 11, further comprising presenting an animated sequence depicting the athletic performance associated with the collection of performance metric information.

16. The method of claim 15, wherein the athletic performance is running.

17. The method of claim 11, wherein the collection of performance metric information represents a single run.

18. The method of claim 11, further comprising allowing a first user to share at least a portion of a first user collection of performance metric information with a different user.

19. The method of claim 11, wherein the collection of performance metric information is indirectly received from the device, further wherein the indirect receipt comprises a communication via the Public Internet and an additional communication between the device of a user and a personal computer of the user.

20. The method of claim 11, further comprising providing a mounting system that secures the motion sensor to a human body part, wherein the mounting system comprises a device holder portion formed such that the motion sensor at least partially fits within the device holder portion and the device

holder portion surrounds the motion sensor such that the motion sensor does not touch the skin of a user.

21. A performance monitoring system comprising:

a computer readable medium storing instructions to direct an athletic monitoring device to generate a first performance metric and a second performance metric that are based at least in part on a signal generated by a motion sensing device; and

wherein the athletic monitoring device comprises an audio output mechanism to simultaneously output a first audio output signal representing an audio file being played by the athletic monitoring device and a second audio output signal representing a spoken reporting of the first performance metric and the second performance metric, and includes a wide area wireless transceiver operable to receive an incoming telephone call, and wherein the athletic monitoring device is configured to indicate the existence of the incoming telephone call and to pause the audio file in connection with an answering of the incoming telephone call.

22. The system of claim **21**, wherein the athletic monitoring device is configured to accept an update that comprises a modified set of performance engine instructions and to store the modified set of performance engine instructions in the computer readable medium.

23. The system of claim **21**, further comprising the motion sensing device.

24. The system of claim **21**, wherein the athletic monitoring device is configured as an MP3 player.

25. The system of claim **21**, further comprising a mounting system for securing the motion sensing device to a human body part.

26. The system of claim **25**, wherein the human body part is an arm.

27. The system of claim **25**, wherein the mounting system comprises a mechanism that secures the mounting system to the human body part and a device holder portion formed such that the motion sensing device at least partially fits within the device holder portion.

28. The system of claim **27**, wherein the device holder portion surrounds the motion sensing device such that the motion sensing device does not touch the skin of the user.

29. The system of claim **21**, further comprising a different computer readable medium storing instructions to direct a personal computer to receive a collection of performance metric information from the athletic monitoring device and to send an update that comprises a modified set of performance engine instructions to the athletic monitoring device.

30. An athletic performance system, comprising:

a mounting system formed to hold a device that: (1) generates a signal indicating that a user is engaging in an athletic endeavor; and, (2) wirelessly outputs the signal to allow a different device having a processor and a memory to generate a first and a second performance metric related to the athletic endeavor and to output a spoken reporting of the first and the second performance metric while also outputting a playing of an audio file to the user, the different device further including a wide area wireless transceiver operable to receive an incoming telephone call, and wherein the different device is configured to indicate the existence of the incoming telephone call and to pause a playing of the audio file in connection with an answering of the incoming telephone call;

the mounting system configured to maintain the device in a position that insulates the device from touching the skin of the user; and

a mechanism that releasably secures the mounting system to a body part of the user.

31. The system of claim **30**, wherein the athletic endeavor is selected from a group consisting of running and walking.

32. The system of claim **30**, wherein the mounting system comprises a holder portion formed such that the device at least partially fits within the holder portion and can be mounted in and removed from the holder portion by the user.

33. The system of claim **30**, wherein the athletic endeavor is cycling.

34. The system of claim **30**, further comprising a remote system configured to receive a collection of performance metric information stored at the different device.

35. The system of claim **34**, wherein the remote system is further configured to generate an animated sequence depicting a representation of the athletic endeavor.

36. The system of claim **30**, wherein the mounting system comprises a holder portion formed such that the device at least partially fits within the holder portion and a top surface of the device remains exposed to a user when mounted in the mounting system.

37. The system of claim **1**, wherein the user request is a voice command.

38. The system of claim **1**, further comprising a toggle disk to enable user interaction with the performance monitoring system.

39. The system of claim **1**, further comprising an application loaded in the performance monitoring system, wherein the application is downloaded over the air via the wide area wireless transceiver.

40. The method of claim **15**, further comprising presenting the animated sequence via a map that displays a performance route and the performance metric information.

41. The method of claim **40**, further comprising presenting the animated sequence using GPS information received from the device.

42. The method of claim **11**, further comprising sharing the performance metric information with a third party via a cellular network.

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