

Chapter 10: Eventing

The ability to record data is essential for all but the most basic offshore navigation/positioning projects. Data items required typically include the vehicle's position, speed, heading, course made good, etc. You may be required to record this information at a set **time** or **distance** interval or **on demand**, such as when the vehicle changes course or passes a point of interest.

WinFrog can accommodate all of these data logging requirements. In WinFrog, the recording of information is referred to as **Eventing**; each individual record is called an **"Event."**

Note: in hydrographic surveying, an **event** is often called a **"fix,"** while in seismic surveying operations the term **"shotpoint"** is often used.

WinFrog can be used to record events in two different ways: **automatically** and **manually**. The two methods of eventing can also be combined. For example, you can configure WinFrog to automatically record events at a set time or distance interval, while simultaneously recording **Manual Events** by clicking a button on the toolbar.

WinFrog is also capable of recording user-definable amounts of **raw** data from all interfaced I/O devices.

For more details, refer to the **Configuring Events** section later in this chapter.

Types of WinFrog Events

Automatic Events

WinFrog can record an event based on a specified time or distance interval or when activated by an interfaced external triggering device. The following information is recorded at each event:

- Event Number
- Vehicle Name
- Position
- Time and Date
- Height
- Depth (of water)
- Layback
- Speed
- Heading
- Course Made Good
- Offset

- QC
- Downline Distance
- Offline Distance
- KP - Kilometer Post (distance downline in kilometers)

Events generated automatically (or by an external trigger) are recorded as one of four different types:

Data Logging	identified with a .DAT file extension
Hydrographic	identified with a .DAT file extension
Source	identified with a .SRC file extension
Receiver	identified with a .RCV file extension

Note: although there are four different record types (3 actually as there are 2 **.dat** files), **the contents of the different record types are exactly the same.**

All files generated by **automatic eventing** are recorded in the directories specified under **File > Select Working Files.**

Manual Event

A “**manual Event**” is defined as the instantaneous recording of navigation and positioning data of all WinFrog vehicles. There are three ways that you can instruct WinFrog to record a **Manual Event**:

- 1 Click the “**EV**” button on the toolbar
- 2 Press the **F10** hotkey
- 3 Select **Configure > Manual Event**

The following information is recorded the instant that a manual event is initiated:

- User-Entered Comment
- All Vehicle Positions
- WinFrog Time and Date
- Height
- Depth (of water)
- Layback
- Speed
- Heading
- Course Made Good
- Offset
- QC
- Downline Distance
- Offline Distance
- KP - Kilometer Post (distance downline in kilometers)

All **Manual Events** are recorded in the **Working Logs (.log)** file, as specified under **File > Select Working Files > Logs**.

Cable Events

In addition to automatic and manual events, WinFrog can also be configured to record “**cable events**”. A **cable event** is a special type of a manual event that is related to cable laying projects. All **cable events** are stored in the **Working CET** file.

The following information is recorded with a **Cable Event**:

- User-Entered Comment
- WinFrog Time and Date
- All Vehicle Positions
- Water Depth
- Cable Tension
- Cable Data Source
- Cable Event Type (one of the following options):
 - KM (Kilometer Mark)
 - Transition
 - Splice Box
 - Repeater
 - Branch
 - Cable End
 - Square
 - Circle
 - Triangle
- Incremental Route Distance
- Cumulative Route Distance
- Incremental Cable Distance
- Cumulative Cable Distance
- Incremental Percent Slack
- Cumulative Percent Slack

Fugro Pelagos has written supporting software to automatically apply cable event information to real-time cable installation calculations. The WinFrog **Cable Management Extension Module** interacts with the **Cable Route Design Database** to model the cable and derive touchdown positions.

(For use of this model, refer to the **WinFrog Cable Management Extension Module (WCMEM) & Cable Route Design Database (CRDD)** User’s Guide.)

The following sections of this chapter explain how to configure a vehicle for **automatic**, **manual**, and **cable events**.

Configuring Vehicles for Automatic Events

In order to configure WinFrog to automatically record event data, you must define one vehicle as the **Primary Event Vehicle**. The information for any number of vehicles can be recorded using automatic eventing. However, only the **Primary Event Generation Vehicle** can trigger event recording. If you want to record information for any other WinFrog vehicle, the additional vehicles must be configured as **Secondary Event Vehicles**. When the **Primary Event Vehicle** triggers an **Automatic Event**, information for that vehicle (along with all secondary event vehicles) is written to disk.

The specification of which vehicle will be the **Primary Event Vehicle** is critical only when automatic events will be generated based on **distance**. Automatic events generated at distance intervals are triggered with respect to the **Downline** distance along a tracked **survey line**. Obviously, unless the various vehicles are at exactly the same location, the **automatic events** would occur at different times for the different vehicles. Thus, events are generated only as the **Primary Eventing Vehicle** crosses (at a right angle to) a multiple of the specified distance interval.

Note: the **downline** distance is not necessarily the same as the **distance traveled** by the vehicle, especially if the vehicle is "weaving" or traveling at an angle to the selected survey line.

The specification of a vehicle as the **Primary Event Vehicle** is not important when **automatic events** are generated based on **time**. In this case, **WinFrog Time** is used, which is the same for the all vehicles. Hence, the **automatic events** will be generated at the same time no matter which vehicle has been designated as the **Primary Event Vehicle**.

To Configure a Vehicle as Event Primary

- 1 Select **Configure > Vehicles**.
- 2 Highlight the vehicle that you wish to designate as the **Primary Eventing Vehicle**.
- 3 Select the **Vehicle Presentation** button to display the **Vehicle Presentation** window.
- 4 In the **Event Generation** area, click the **Event Primary** radio button.
- 5 Click **OK** to close the **Vehicle Presentation** dialog box.

Note: if another vehicle is already set as the **Primary Eventing Vehicle**, WinFrog displays a message stating that the other vehicle must be configured as a

Secondary Eventing Vehicle before this vehicle can be enabled as the **Primary Event Vehicle**.

To Configure a Vehicle as Event Secondary

In order to have data collected for vehicles other than the **Primary Eventing Vehicle**, they must be designated as **Secondary Event Vehicles**.

- 1 Select **Configure > Vehicles**.
- 2 Highlight the vehicle that you wish to designate as the **Secondary Eventing Vehicle**.
- 3 Select the **Vehicle Presentation** button to display the **Vehicle Presentation** window.
- 4 In the **Event Generation** area, click the **Event Secondary** radio button.
- 5 Click **OK** to close the **Vehicle Presentation** dialog box.

Enabling and Activating Automatic Events

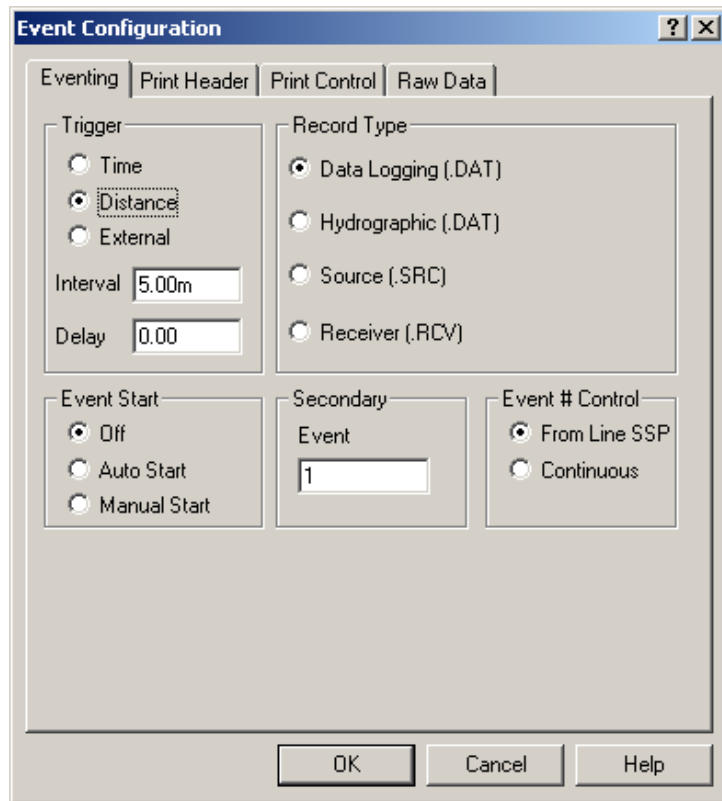
The following section details the steps required to **enable** and **activate automatic event** recording in WinFrog. These instructions require that a vehicle has been designated as the **Event Primary** vehicle. If this has not yet been completed, see the section above for details.

To Enable Automatic Event Recording

- 1 Ensure that the **Primary Eventing Vehicle** is visible in the **Vehicle Text** window.
- 2 Move the mouse pointer into the **Vehicle Text window** and click the right mouse button.
- 3 Move the mouse pointer to the **Setup Data Events** button and click the left mouse button to bring up the **Event Configuration** dialog box. (This dialog box can also be accessed by selecting **Configure > Data Events...Setup** or by **Configure > Vehicles > Setup Data Events**.)

The **Event Configuration** dialog box contains four tabs: **Eventing**, **Print Header**, **Print Control**, and **Raw Data**.

- 4 Select the **Eventing** tab first.



- 5 Select the appropriate **Trigger** radio button.

The **Trigger** selection defines the method by which **automatic events** are triggered.

Time radio button

Select this button to record events at a configurable **Time** interval and enter the time interval, in seconds, in the **Interval** field.

Distance radio button

Select this button to record events at a configurable **distance** interval. This mode requires that the **Primary Eventing Vehicle** be tracking a survey line. As the **Primary Eventing Vehicle** moves parallel to the selected survey line, WinFrog calculates the increasing or decreasing **Distance Downline** value relative to the vehicle's **Tracked Offset** point. WinFrog triggers events as the **Primary Eventing Vehicle's Tracked Offset Point** crosses whole number multiples of the specified **Distance Interval**. Remember, this is not necessarily the same as the distance traveled by the vessel. If this mode is selected, enter the distance interval in the

Interval field, using the correct unit of measure.

Note: if the **Trigger** mode is set to **Distance** and the **Primary Eventing Vehicle** is not tracking a survey line, WinFrog will not record any **Automatic Events**. If the **Record Type** is set to **Hydrographic**, **Source**, or **Receiver**, (as detailed below) WinFrog automatically prompts you to select a survey line to track. However, if the **Data Logging** record type is selected, WinFrog does not prompt for a survey line to be tracked. In this case, the survey line tracking must be enabled from the **Survey Line** dialog box (select **Setup Line Tracking** from the **Vehicle Text** window right click shortcut menu).

External radio button

Select this button to have an external triggering device generate **Automatic Events**. This requires the installation of a special cable between the triggering device and a WinFrog comm port. You must also add the appropriate **Event** device (typically the **Trigger > Closure In** device) to the **Event Primary** vehicle's **Devices**.

Interval field

Enter the time or distance interval as described above.

Delay field

This value only works with **Eventing Based on Distance**. As the vehicle travels down a survey line, WinFrog anticipates the next upcoming event and sends out a closure before the automatic event is to take place. The delay value defines the number of seconds before the event that this closure is sent. This calculation is based on WinFrog's calculated downline speed. This is intended for use with seismic systems that need some advance "warning" to prepare for an event.

- 6 In the **Record Type** area, click the appropriate radio button.

Remember, you can record automatic event data to a file using any of the four different record types. All four **Automatic Event Record Types** contain exactly the same data, in exactly the same format, but are easily distinguishable by their file extensions.

Any one of the four options can be used when triggering is based on time. In order to keep it simple, the **Data Logging** option is recommended.

Any one of the four options can also be used when triggering is based on distance. If you select the **Hydrographic**, **Seismic**, or **Cable Lay** record type, a window opens prompting you to select a survey line before automatic event recording is enabled. If the **Data Logging** type is selected with distance triggering, you must enable survey line tracking before you begin configuring automatic events.

(See the **Working Files** chapter and **Appendix A: WinFrog File Formats** for a detailed explanation of file use and file structure in WinFrog.)

- 7 In the **Event Start** area, click the desired radio button.

These buttons define how **Automatic Eventing** will be made **Active**.

Auto Start

This option instructs WinFrog to immediately enable **Event Active** status when **OK** is selected to close the **Event Configuration** window.

Manual Start

This option instructs WinFrog to initiate **Event Enabled** status when the **OK** is selected in the **Event Configuration** window. All of the **Event Configuration** window options that have just been set are retained and you are able to manually activate events.

WinFrog will not start automatic event recording until the **Event Status** is **Active**.

You must change the **Eventing Status** to **Active** by clicking on the **Event Start** button in the toolbar. Alternatively, you can select **Configure > Data Events... Start** from the main menu.

Regardless of which button is chosen, WinFrog actually completes two stages before it will start automatic event recording.

In the first stage, eventing is set to **Enabled** status. Data are not recorded while in **Event Enabled** status. There are 2 ways to determine if WinFrog is set to the **Event Enabled** status: the **Event Start** button in the toolbar will change in color from **gray** to **green** and the **Event Status** option in the **Vehicle Text** window will state **EVT Enabled** (as opposed to **Evt Active**).

The second stage is **Event Active**. WinFrog must be in **Event Active** status to record automatic event data. There are 2 ways to determine if WinFrog is in **Event Active** status: the **Event Stop** button in the toolbar will change in color

from **gray** to **red** and the **Event Status** option in the **Vehicle Text** window will state **EVT Active**.

8 Configure the **Secondary** option.

This option is for output to 2 specific devices: the **Odom DF3200** echosounder and the WinFrog **Closure Out** device. The value entered in this window defines how often an output will be sent. For example, entering a 5 in this window instructs WinFrog to output to these devices only every fifth automatic event.

9 In the **Event # Control** area, click the desired radio button.

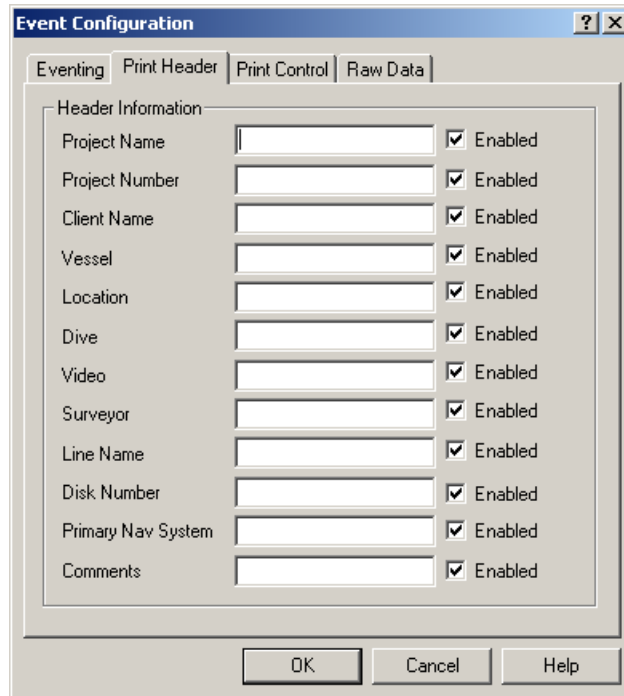
The selection made here will define the default starting **Event Number** that appears when you close the **Event Configuration** window (the window that you are in now) and the **Data Logging** window is displayed.

If you select the **Line** option, WinFrog will use the **Starting Event Number** entered when the survey line was created. This option obviously requires that a survey line be selected for tracking.

If you select the **Continuous** option, WinFrog will use the last **Event Number** that was generated when eventing was last used, incrementing or decrementing this value as required to match the defined counting order. (The number 1 will default here for the initial data collection session).

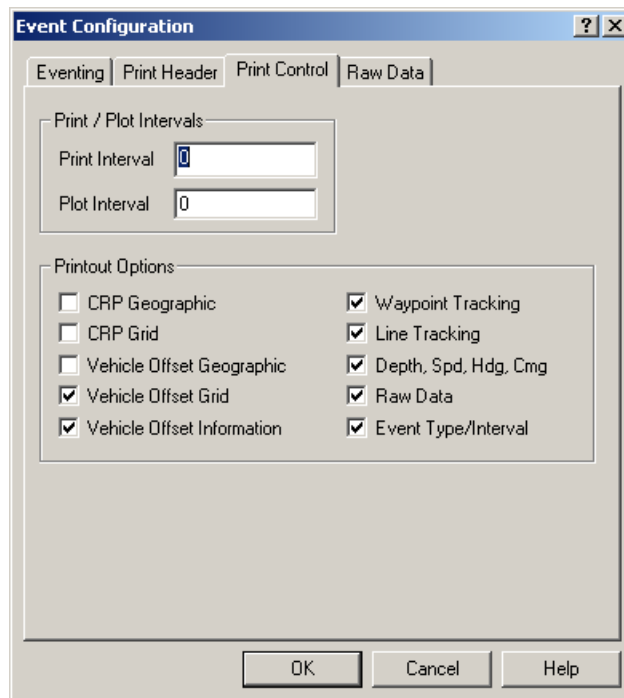
Note: this option only defines the **default** number that will appear in the **Starting Number** entry window. You can always change the number to another value later, if you wish. This option is provided only as a convenience in those situations where the same **Event Number** is used at the start of each survey line, as is typically the case with seismic surveys. This saves you from having to enter a **Starting Number** each time data collection is re-activated.

10 Click the **Print Header** tab.



This dialog box presents twelve fields for entering information that prints on the top of each page while WinFrog is generating automatic events. Click an entry field and enter text for that specific category. If a window is not pertinent and no data are entered, you can disable the printing of a blank space by de-selecting the **Enabled** option for that particular field.

11 Click the **Print Control** tab.



This dialog box allows you to define the interval at which information will be printed. (At present, the **Plot Interval** feature is not available).

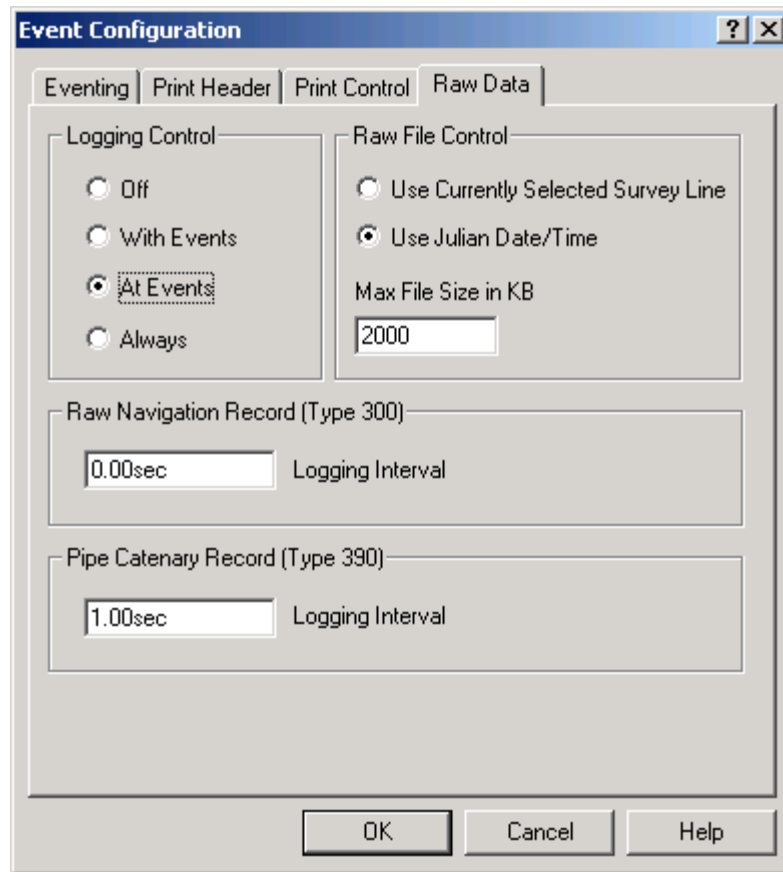
- 12 Click in the **Print Interval** field and enter the desired value. For example, entering a **5** here specifies that WinFrog will print at every **fifth** automatic event, while entering a **0** instructs WinFrog to **not** print any automatic events.

There are 10 **Printout Options** to choose what data (if any) are printed. The data are printed for the **Primary Eventing Vehicle** and all **Secondary Eventing Vehicles** as well.

The **Printout Options** include:

CRP Geographic	the geographic coordinates (latitude and longitude) of the vehicle's Common Reference Point (CRP)
CRP Grid	the grid coordinates (Northing and Easting) of the vehicle's Common Reference Point (CRP)
Vehicle Offset Geographic	the geographic coordinates (latitude and longitude) of the Vehicle Offset point being tracked
Vehicle Offset Grid	the grid coordinates (Northing and Easting) of the Vehicle Offset point being tracked
Vehicle Offset Info	offset details
Waypoint Tracking	the bearing and distance from the vehicle's currently tracked offset point to a selected waypoint
Line Tracking	survey line tracking information including the distance to the Start of Line (SOL), End of Line (EOL), and Offtrack distance and direction
Depth, Spd, Hdg, CMG	The water depth (as provided by an interfaced echosounder), the vessel's speed, heading, and Course Made Good
Raw Data	the raw, uncorrected data read directly from interfaced I/O devices at the instant of the printed event
Event Type/Interval	the type of event trigger (time or distance) and the event interval

13 Click the **RAW Data** tab.



This dialog box allows you to define the amount of raw data that is recorded and the naming convention used for the **.raw** files as they are recorded. Remember, except for the 300 and 390 records, raw data are the data recorded directly from an interfaced device; no offsets, corrections, or filtering is applied.

Logging Control

The **Logging Control** options are used to configure the amount of raw data that are recorded. There are four modes: **Off**, **With Events**, **At Events**, and **Always**.

Off

No raw data are recorded.

With Events

WinFrog begins recording raw data at the first automatic event, recording raw data continuously until automatic eventing is stopped.

For example, consider the case when automatic eventing is set to trigger based on **Distance** at an interval of 25 meters. Eventing on **Distance** is always based on the downline distance as calculated relative to a tracked survey line.

In this case, eventing will start as the vehicle's tracked offset point crosses perpendicular to the start of the survey line and will continue until stopped by the operator. If the raw data **Logging Control** is set to **With Events**, raw data are recorded continuously for the **same** time span.

If automatic eventing is set to trigger based on **Time** at an interval of 10 seconds, raw data are recorded continuously from the instant that the **Event Status** is made **Active** up to the instant that the **Event stop** button is pressed.

At Events

Raw data are recorded only when an automatic event occurs. For example, if automatic eventing is set to trigger every 10 seconds, raw data will be recorded only at those same 10 second intervals.

Always

Raw data are recorded as soon as the **OK** button is clicked to close the **Event Generation** dialog box. You do not have to enable automatic eventing recording to record **Raw Data Always**. As with **Raw With Events**, all data being received from interfaced I/O devices are recorded.

Raw File Control

Raw File Control establishes the **.raw file** name and the maximum **.raw** file size. All raw files are created with a **.raw** file extension. The raw file name can be one of two options:

Use Currently Selected

Survey Line

Using this option, the **.raw** file name will be the same as the currently selected survey line. For example, if **line1** is being tracked, the file name will be **line1.raw**. If no survey line is currently being tracked, the raw file name will default to **noline.raw**.

Use Julian Date/Time

Using this option, the **.raw** file name will be based on **WinFrog's** Julian date and time. The Julian day is the number of that day of the year, starting with January 1st as Julian day number 1. For example, September 27, 1999, is Julian day 270 for that year. If the raw data collection began at 8:00 am that day, the raw file name would be **270-0800.raw**. If another raw file is created in that same minute, the seconds would be added to the file name and the file name would display as **270-080032.raw**.

Note: WinFrog's time can be based on the computer's clock or synchronized to GPS time.

Max File Size in KB

This entry window only works in conjunction with the **Julian Date/time** naming option. It allows you to define the maximum size of any single **.raw** file. As the maximum file size is reached, a new **.raw** file will be created, again named according to WinFrog's date and time. The only limit to file size is the amount of space available on the computer's hard drive. You should limit the file size to a practical size so that the file can be easily transferred or edited. The default of 200 KB is recommended for most operations.

Note: during eventing, WinFrog constantly checks the amount of space left and issues a warning when the capacity gets down to 1 mb. **Note:** this warning will not occur if you have set raw data collection to **Always**. As mentioned above, recording raw data **Always** does not require **eventing** to be active.

Raw Navigation Record (Type 300)

Logging Interval

This entry window allows you to record the **type 300** raw record at an interval different to the other raw records. The type 300 record is a unique record type created for a specific client. **Note:** since most users do not require this data record type, enter 0.0 in this field. Once a logging control option has been selected, this record will be recorded to file at the rate selected regardless of the event status.

Pipe Catenary Record (Type 390)

Logging Interval

This entry window allows you to record the **type-390** raw record at an interval different to the other raw records. The type-390 record contains the dynamic tracking data (Chp 6) and calculated pipe catenary data. Once a logging control option has been selected, this record will be recorded to file at the rate selected regardless of the event status.

(For more information about raw data files, see the **RAW Files** section in the

Basic Ribbit chapter. The formats are given in appendix B.)

- 14 Once all of the **Event Configuration** options are set, click **OK**.

Depending upon the **Record Type** that was selected in the **eventing options**, one of two dialog boxes opens.

Event Secondary Configuration

If the **Data Logging (.DAT)** radio button is selected in the **Record Type** area of the **Event Configuration** dialog box, WinFrog opens the **Event Secondary Configuration** dialog box, as described immediately below. If either the Trigger is set to Distance or the Raw Data Raw File Control is set to Use Currently Selected Survey Line in the **Event Configuration** dialog box, the **Event Secondary Configuration** dialog box includes a Select Survey Line tab. This allows you to select a survey line to track directly from the eventing setup.

Distance Fixing

If **Hydrographic (.DAT)**, **Source (.SRC)**, or **Receiver (RCV)** is selected in the **Record Type** area of the **Event Generation** dialog box, WinFrog opens the **Distance Fixing** dialog box, as described further below.

To Configure the Event Secondary Configuration Dialog Box

The screenshot shows the 'Event Secondary Configuration' dialog box. It has a title bar with a question mark and close button. Inside, there are two tabs: 'Event File' and 'Select Survey Line'. The 'Event File' tab is selected. Under this tab, there is a 'File Name' text box containing the word 'EVENT'. Below that is an 'Event Number' section. It includes a 'Starting Number' text box with 'N/A' entered. To the right of this are two radio buttons: 'Increment' (which is selected) and 'Decrement'. Below the radio buttons is a 'by' text box with the number '1' entered. At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Apply'.

- 1 Enter a name in the **File Name** field.

The name must be 24 characters or less. Any spaces in the file name will be removed when the file is written to disk. WinFrog adds the extension **.DAT** to the file name and records the file in the **Filing Directory** as specified in **File > Select Working Directories**.

- 2 Enter a value in the **Starting Number** field in the **Event Number** area.

Each individual automatic event has a numerical value assigned to it. The **Starting Event Number** is the value assigned to the first event. WinFrog will enter a default number in this window, based upon the last event taken in the previous event file or the event number specified for a tracked survey line.

- 3 Select the **Increment** or **Decrement** radio button.

Configure this option as required. For eventing based on time, this is typically set to **Increment**. For eventing based on distance, this may be determined by the direction the line is run. Often, when conducting a site survey with numerous parallel lines, you will want to have matching event numbers located at the same distance downline locations. In this case, you would increment the count as you go in one direction, then decrement it as you go back.

- 4 Enter a value in the **by** field. Typically, this is left at the default value of 1.

This sets the amount that the event number will increment or decrement. For example, if **by** is set to **2** and the **Starting Number** is set to **0**, WinFrog numbers the events **0, 2, 4, 6...** when the **Increment** radio button is selected.

- 5 Click **OK** to close this window and proceed to eventing.

Event File Dialog Box

The **Event File** dialog box opens if an **Event file** of the same name already exists in the **Filing Directory**.

- 1 If the existing file is not to be used, click **No**. WinFrog returns to the **File Name Entry** dialog box.
- 2 If the existing file is to be used, click **Yes**. WinFrog opens the **Append File** warning box.
- 3 To overwrite the existing file, click **No**.
- 4 To append new data to the existing file, click **Yes**.

WinFrog now returns you to the previously configured real-time display. Depending on the **Event Start** selection made (see above), the **Event Status** is now either **Enabled** or **Active**. (See below for further information on Event Status.)

Distance Fixing Dialog Box

If the **Hydrographic**, **Seismic**, or **Cable Lay** radio button is selected in the **Record Type** area of the **Event Generation** dialog box, WinFrog opens the **Distance Fixing** dialog box. This dialog box is used to configure the distance fixing for event generation.

To Configure the Distance Fixing Dialog Box

The **Distance Fixing** dialog box is used to configure event generation settings. It includes the following fields and controls:

- Survey Line:** Radio buttons for **Forward** and **Reverse**, and a dropdown menu.
- Event File Name:** Text box.
- File Name Prefix:** Text box.
- Event Number Interval:** Text box (value: 1) and radio buttons for **Increment** and **Decrement**.
- Start Of Eventing:** Fields for **Event # at SOL** (0), **EOL** (0), **Distance Downline of SOL** (0.00m), and **Start of Data Logging Event #** (0).
- Run-In/Out Events:** Fields for **Number Of Run-In** (0) and **Number Of Run-Out** (0), each with an **Event #** field (0).
- Graphics Extension:** Radio buttons for **Off** (selected) and **On**, and a **Length** field (0.00m).

Buttons: **OK**, **Cancel**, **Help**.

Survey Line

dropdown menu

lists all of the survey lines in the **Working Survey Line (.pts)** file . Select the desired choice.

Forward radio button

informs WinFrog that the survey line will be tracked in the “forward” direction (the direction that the coordinates were entered).

Reverse radio button

informs WinFrog that the survey line will be tracked in the “reverse” direction (the opposite direction from the way that the coordinates were entered).

Event File Name

entry field

Enter the name of the file in this field. WinFrog will enter the survey line name as a default, but you can enter your own file name. WinFrog adds a three letter file extension to the file name based on the user's selection in the **Record Type** area of the **Event Generation** dialog box: **.DAT**, **.SRC**, or **.RCV**.

File Name Prefix

entry field

If you want to add a prefix to the name of the **Event File Name**, enter it in this field. This is primarily used for “re-shoots” of the same survey line.

Note: the prefix must not contain quotes, back slashes, forward slashes, square angle braces, curly braces, colon, semicolon, equal sign, dots, spaces or commas as these characters will not be appended to the EVENT FILE NAME.

Event Number Interval

entry field

WinFrog labels consecutive events by the value entered in this field.

Increment radio button

Increases the event number for the next event by the value entered in the **Event Number Interval** window.

Decrement radio button

Decreases the event number for the next event by the value entered in the **Event Number Interval** window.

Start Of Eventing

Event # at SOL field

WinFrog labels the first automatic event with the number entered in this field.

Distance Downline of SOL
field

This is the distance from the **Start of Line** where eventing will commence. This option is used when it is necessary to begin the data collection somewhere other than at the start of the survey line. If eventing is to start at the SOL, leave this as the default value of 0.

First Shot Downline field

Enter the number of the event where you want to start the eventing. Again, this is for

re-shoots. The default value here (0.0) configures eventing to start at the SOL, but you can enter a different value to start eventing somewhere down the line. WinFrog takes this event number and multiplies it by the event interval to determine where this event will take place.

Run-In/Out Events

Number of Run-In field

This is the number of events to take before the start of the currently tracked survey line.

Number of Run-Out field

This is the number of events to take after the end of the currently tracked survey line.

Graphics Extension

Off/On radio button

Select the **On** button to have WinFrog create a dotted line in the **Graphics** window, extending the currently tracked survey line. This assists the helmsman in lining up the vessel with the survey line before actually reaching the start of it.

Length

Enter the length of the dotted **Graphics Extension** line.

When all values are configured as desired, click **OK**. The **Event File** dialog box opens if an **Event** file already exists. (See above for details.) Otherwise, WinFrog returns you to the previously configured real-time display. Depending on the **Event Start** selection made (see above), the **Event Status** is now either **Enabled** or **Active**.

Eventing is Enabled/Active

Collection of automatic events commences when **Event Status** is made **Active**. If the **Auto Start** radio button was selected in the **Event Generation** dialog box, WinFrog proceeds directly to **Event Active** status and begins recording data.



If the **Manual Start** radio button was selected in the **Event Generation** dialog box, WinFrog is only in **Event Enabled** status.

To Activate Data Recording

- 1 Click the green **Start** button in the toolbar or choose the main menu item **Configure > Data Events...Start**.

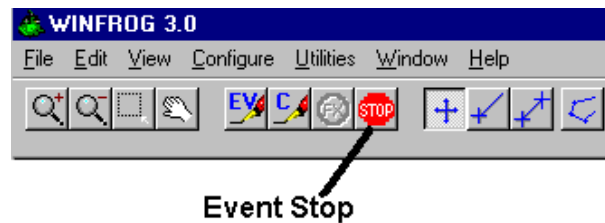
Several things will happen when the **Automatic Event** data collection **Status** is **Active**.

- In the **Vehicle Text** window, the **Event Status** section indicates **EVT ACTIVE** and the **Event Number** section displays the current event number.
- The **Graphics** display (in its default configuration) will display the event locations and event numbers (scale dependent).
- If a survey line is being tracked, its color in the Graphics window will change to the color of the **Primary** eventing vehicle. The Vehicle Text window will display the **Line Name**, **Distance to SOL**, **Distance to EOL**, and the **Port/Starboard** information (the distance perpendicular from the current survey line segment to the vehicle.)
- The red **Event Stop** button is enabled. This button is used to stop eventing, as described in the following section.

Stopping Automatic Event Data Recording

To Stop Recording Data

- 1 Click the red **Event Stop** button on the toolbar (as seen below), or choose **Configure > Data Events... Stop**.



WinFrog will present the same window that was used to configure the **Event File Name** for the data recording session that just ended.

If the **Data Logging** radio button was selected in the **Record Type** area of the **Event Generation** dialog box, WinFrog opens the **Data Logging** dialog box.

If the **Hydrographic**, **Seismic**, or **Cable Lay** radio button was selected in the **Record Type** area of the **Event Generation** dialog box, WinFrog opens the **Distance Fixing** dialog box.

This allows you to quickly restart automatic event recording using the same event configuration options previously selected. If these event configuration parameters are still suitable, you only have to change the **Event File Name**.

If you want to change the recording parameters or stop data recording completely, click the **Cancel** button. This causes WinFrog to exit **Event Configuration** altogether.

Manual Events

In addition to recording automatic events, WinFrog also allows you to record **Manual Events** and **Cable Events** at the press of a button.

To Record a Manual Event

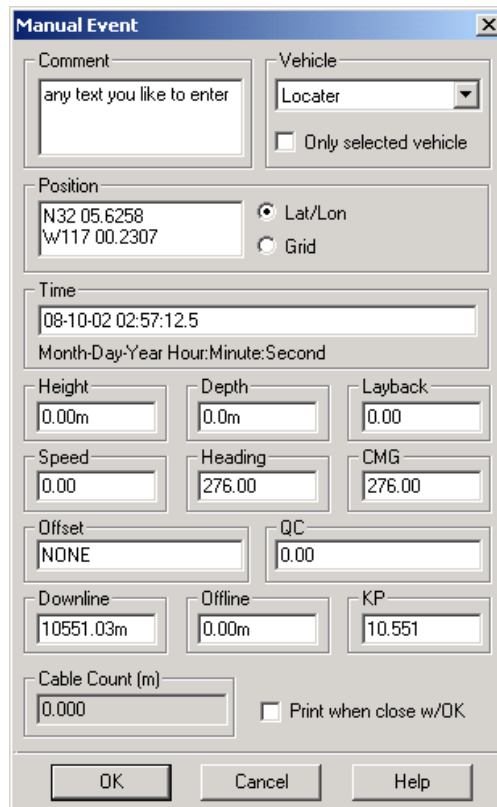
There are three ways to record a **Manual Event**:

- 1 Click the **Manual Fix** button in the toolbar, as seen below



- 2 Choose the main menu item **Configure > Manual Event**.
- 3 Press the **F10** key along the top row of the keyboard.

Regardless of which of the above methods is used, the **Manual Event** dialog window appears, as seen in the next figure.

A screenshot of the 'Manual Event' dialog box. The dialog has a title bar with 'Manual Event' and a close button. It contains several input fields and checkboxes. The 'Comment' field has the text 'any text you like to enter'. The 'Vehicle' dropdown menu is set to 'Locator'. There is a checkbox for 'Only selected vehicle'. The 'Position' section has two text boxes: 'N32 05.6258' and 'W117 00.2307'. There are radio buttons for 'Lat/Lon' (selected) and 'Grid'. The 'Time' section has a text box with '08-10-02 02:57:12.5' and a label 'Month-Day-Year Hour:Minute:Second'. The 'Height' field is '0.00m', 'Depth' is '0.0m', and 'Layback' is '0.00'. The 'Speed' field is '0.00', 'Heading' is '276.00', and 'CMG' is '276.00'. The 'Offset' field is 'NONE' and 'QC' is '0.00'. The 'Downline' field is '10551.03m', 'Offline' is '0.00m', and 'KP' is '10.551'. The 'Cable Count (m)' field is '0.000'. There is a checkbox for 'Print when close w/OK'. At the bottom are 'OK', 'Cancel', and 'Help' buttons.

To see the information for another vehicle, click the **Vehicle** dropdown field. All of the other fields will update to show the selected vehicle's data.

By default, WinFrog will record information for all vehicles. If you want to record data for only one specific vehicle, select that vehicle from the dropdown field and select the **Only selected vehicle** checkbox. If this checkbox is not selected, you can see the information for any other vehicle by using the **Vehicle** dropdown field.

To print the event, select the **Print when close w/OK** checkbox. This sends this event to the printer when the OK button is clicked.

To Edit a Manual Event After it has been Recorded

- 1 Select **File > Edit Working Files.... > Logs**
- 2 Highlight the appropriate **Manual Event**
- 3 Select **Edit**.

The same **Manual Event** dialog window will appear as when the manual event was initially recorded.

WinFrog's **Graphics** and **Bird's Eye** windows can be configured to display the location of manual events. See the **Operator Display Windows** chapter for more information on WinFrog displays.

Cable Events

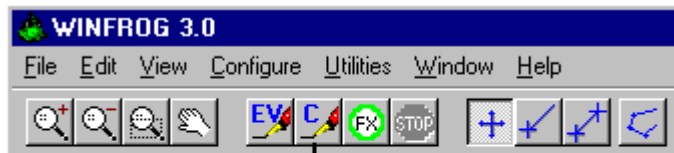
Much like manual events, **Cable Events** allow you to record information at the touch of a button. However, **Cable Events** differ from manual events in that they record additional data specific to cable installation projects. Specifically, cable events record the observed **Incremental and Cumulative Route and Cable Distances**, and the observed **Incremental and Cumulative Slack Percentages**.

Note: a **Working .cet** file or **.mdb Cable Engineering Database** file must be opened before a cable event can be recorded. (See the **Working Files** chapter for more information on these file types.)

To Record a Cable Event

There are three ways to record a **Cable Event**:

- 1 Click the **Cable Event** button on the toolbar, as seen below.



Cable Event

- 2 From the main menu item **Configure**, select **Cable Event**.
- 3 Press the **F11** hotkey along the top row of the keyboard.

Regardless of which method is used, the same **Cable Event** dialog box will appear, as seen in the next figure.

Cable Event		
Comment SB 1		
Vehicle Locator	Time 08-10-02 02:54:21.0	
Position N32 52.9689 W116 46.2520	Water Depth 138.8m	
☒ Geo ☐ Grid	Tension 1200t	
Cable Data		
Count Source SimCounter	Tension Source SimCounter	Type KM Mark
Route Distance Incremental 363.07m	Cable Distance Incremental 0.00m	Percent Slack Incremental -100.00
Cummulative 363.07m	Cummulative 0.00m	Cummulative -100.00
☐ Print When Exit w/OK		
OK	Cancel	Help

The **Cable Event** dialog box displays a variety of information pertinent to cable laying operations.

- User-Entered Comment
- Vehicle Name
- WinFrog Date and Time
- All Vehicle Positions
- Water Depth
- Cable Tension

Cable Data

Source	Select a cable counter peripheral device previously added to WinFrog.
Type	Select one of the provided options.

The options presented are specific to cable laying projects:

KM Mark	Splice Box	Circle	Repeater	Cable End
Transition	Square	Triangle	Branch	

Route Distance

Incremental	The distance traveled along the route since the previous cable event.
Cumulative	The distance traveled along the route since the first cable event.

Cable Distance

Incremental	The amount of cable let out since the previous cable event.
Cumulative	The amount of cable let out since the first cable event.

Percent Slack

Incremental	The amount of slack in the cable since the previous cable event.
Cumulative	The amount of slack in the cable since the first cable event.

To see the information for another vehicle, select from the **Vehicle** dropdown field. All of the other fields will update to show the selected vehicle's data.

To print the event, select the **Print When Exit w/OK** checkbox. This sends this event to the printer when the OK button is clicked.

To Edit a Cable Event After it has been Recorded

- 1 Select **File> Edit Working Files.... > Cable Events**
- 2 Highlight the appropriate cable event
- 3 Select **Edit**.

The same **Cable Event** dialog box displays as when the event was initially recorded.

The **Graphics** and **Bird's Eye** windows can be configured to display **Cable Events**. For more details, see the **Operator Display Windows** chapter.