

CyberTracker 3

Control Reference Manual

CyberTracker version 3.268

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Static Controls

Static controls are simple controls that do not change based on the Application. They are useful for displaying state (like the battery level) or for layout and visual design.

Static controls can be placed on any screen and do not change based on prior screens or prior sightings.

Static controls have no effect on screens other than the one they are on.

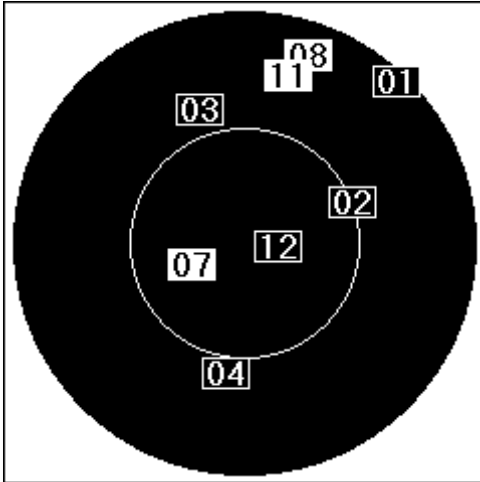
Control Name	GPS	Control Type	Static
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Summary of Control

This control displays the state of the connected GPS.

The primary property of interest is `Style`, which controls how the output is displayed, it has several possible states:

<div style="border: 1px solid black; padding: 20px; text-align: center; width: 100%;"> <h2>Simulator</h2> </div>	<h3>State</h3> <p>The state setting will display the state of the GPS. There are several possible modes:</p> <p>Not found: no GPS was found.</p> <p>Off: no GPS signal was received for 10 seconds or the GPS is known to be OFF.</p> <p>Detecting: the system is in the process of searching for a GPS.</p> <p>Acquiring: a GPS has been found, but it has not yet produced a fix.</p> <p>2D GPS: the GPS has a 2D fix (no altitude).</p> <p>3D GPS: the GPS has a 3D fix.</p> <p>Differential: the GPS has a differential quality fix.</p> <p>Simulator: the simulator is providing data.</p>
<div style="border: 1px solid black; padding: 20px;"> <div style="display: flex; align-items: center; margin-bottom: 5px;"> ⊖ 37°13'41.953" N </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> ⊙ 006°10'7.050" W </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> △ 297 m </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> ⊗ 1.0 </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> ⊞ 6/14/2011 </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> ⌚ 23:07:13 </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> ⇒ 305.91 km/h </div> <div style="display: flex; align-items: center;"> △ 293° </div> </div>	<h3>Data</h3> <p>Check the “Extra data” property to provide extended data if there is enough screen space.</p> <p>The values are from top to bottom:</p> <ul style="list-style-type: none"> Latitude Longitude Altitude Accuracy Date Time Speed Direction

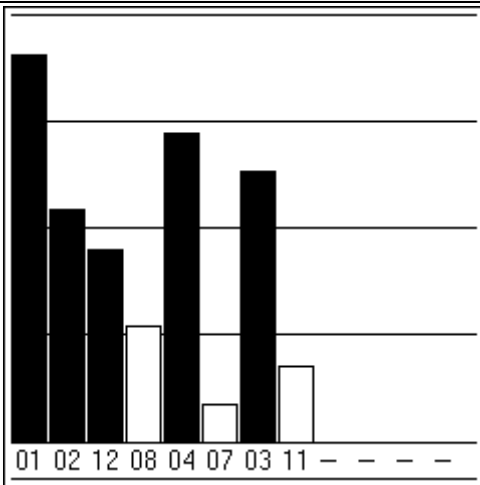


Sky

The sky view provides a view of which satellites are being tracked as part of the fix.

The numbers reflect the ids of the satellites (see Bars).

If the color around the number is black, then that satellite is part of the current fix.

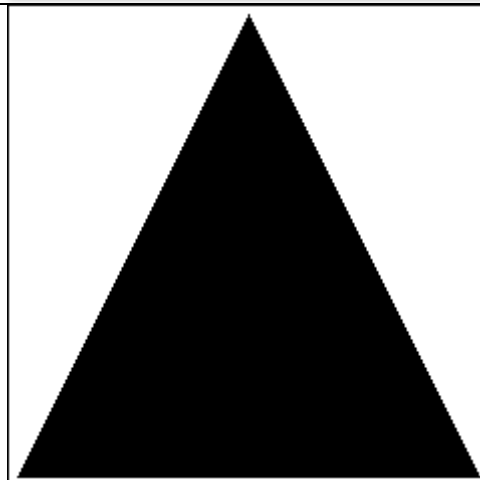


Bars

The signal strength bars.

The numbers reflect the ids of the satellites (see Sky).

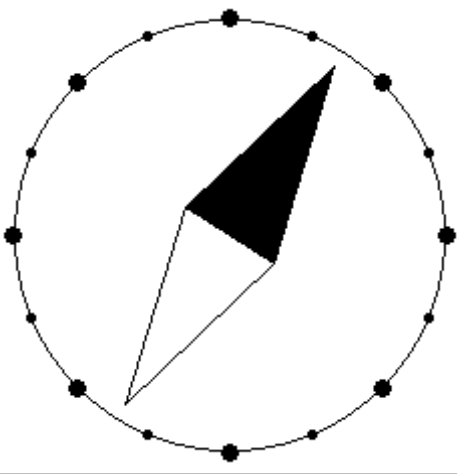
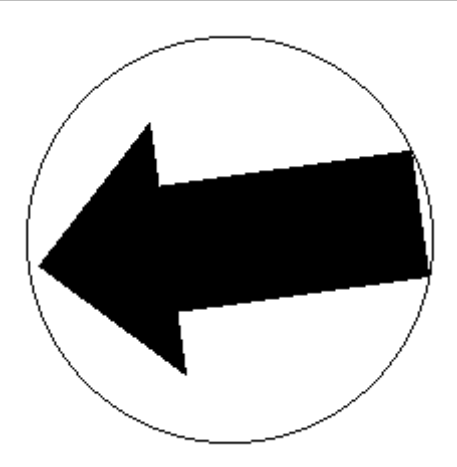
If the bar is filled, then that satellite is part of the current fix.



Triangle

Represents the current state of the GPS. A filled triangle means the GPS has a fix.

To learn more about the different states of the triangle, check out the Navigator GPS control.

	<p>Compass</p> <p>The compass shows the current heading. This is based on the GPS heading and is relative to True North.</p>
<p>Nesting site</p> <p>⊙ 319° (NW)</p> <p>→ 896 m</p>	<p>Goto data</p> <p>This style shows the distance and direction to the currently active Goto point.</p> <p>If Goto points have been specified, this control is used on the GPS dialog.</p>
	<p>Goto pointer</p> <p>This style shows the direction to the currently active Goto point.</p> <p>If Goto points have been specified, this control is used on the GPS dialog.</p>

The “Auto connect” property will cause the GPS to be turned on (if it is not already). If the GPS was turned on by this control, leaving the screen will turn it off again.

Related Controls

Navigator GPS

Tips

The above states are all available from GPS dialog.

Relevant Properties





Name	Description	Tips
Auto connect	Force GPS to turn on when control is loaded	
Extra Data		
Required accuracy	Accuracy level required to consider a fix.	
Style	Display style	See above

Control Name	Image	Control Type	Static
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Summary of Control

The Image control displays a single static image.

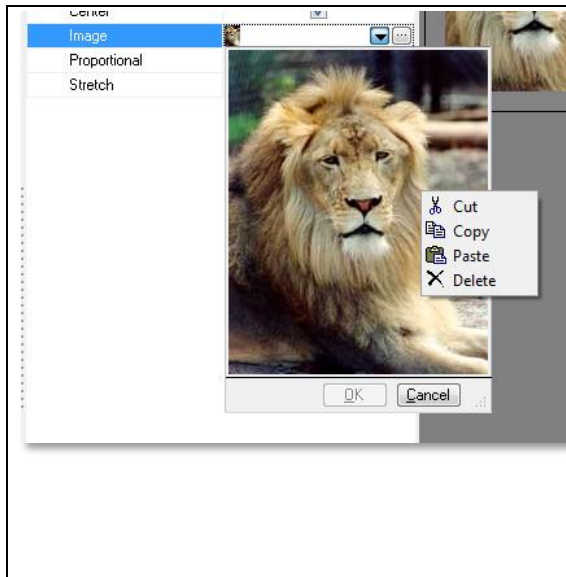
There are several properties that will control the Image display:

	<p>Proportional checked Center unchecked</p> <p>The Proportional property overrides the Stretch property.</p>
	<p>Proportional checked Center unchecked</p> <p>The Center property controls whether the images in centered in the control.</p>
	<p>Proportional unchecked Stretch checked</p> <p>The Center property is not relevant, because the image will be sized to fit the control.</p>
	<p>Proportional unchecked Center checked Stretch unchecked</p> <p>If the image is larger than the control, then it may not be completely visible if both Proportional and Stretch are unchecked.</p>



Using the Color and Border width properties will frame the image with the desired color. This is useful spacing.

The Image itself can be set in two ways:



Clicking the “...” button will open up the standard “Image open” dialog. This will allow browsing the file system for an image.

Clicking the down arrow will open up a window of the image. Right clicking on this window will bring up a menu (as shown on the left). Selecting Paste will paste an image from the clipboard.

If browsing images on the internet, some web sites allow copying of images directly to the clipboard. This is a useful way of populating images.

Once an image has been modified, press the OK button to confirm.

Related Controls

Zoom Image
Element Image
Element Zoom Image

Tips

It is important to size the image according to the size of the target device, otherwise the Application may not perform very well. For example, if the screen resolution on the device is 640 x 480 pixels and the image is 3000 x 3000 pixels, then this will result in significant waste of space.

Relevant Properties

Name	Description	Tips
Image	Specifies image location	Preview display can be used to copy, paste and delete an image
Proportional	Prevents image from becoming	

	distorted when stretched	
Stretch	Stretch the image to fit control	Select this property when using docking to control screen display
Transparent	Allow the background to show through. Color property is not used if this is on	
Transparent Image	Treats the image as transparent to let the background show through.	

Control Name Marquee **Control Type** Static

Summary of Control

The Marquee control scroll text from left to right or right to left across the control.

The font, caption and scroll rate are customizable.

Related Controls

Panel

Tips

Set the scroll rate to a negative number to change the direction of the scroll.

Screens with scrolling text tend to use more power, because the screen is being continually refreshed. For this reason, this control is used less when Applications are intended for battery only scenarios.

Relevant Properties

Name	Description	Tips
Caption	The text that is displayed in the control	
Scroll Rate	The Speed at which the text moves across the control	A positive value scrolls right to left. A negative value scrolls left to right.

Control Name	Memo	Control Type	Static
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Summary of Control

The Memo control is used to display multi-line text.

If the text exceeds the size of the control, then a scroll bar will appear.

<p>This is a long text description and is therefore well suited to the Memo control.</p> <p>Notice how the Caption wraps around from line to line. When the text is longer than the control, a scroll bar will appear.</p>	<p>This is the default control view.</p>
<p>This is a long text description and is therefore well suited to the Memo control.</p> <p>Notice how the Caption wraps around from line to line. When the text is longer than the control, a scroll bar will appear.</p>	<p>The text can be entered using the Alignment property.</p>
<p>This is a long text description and is therefore well suited to the Memo control.</p> <p>Notice how the Caption wraps around from line to line. When the text is longer than the control, a scroll bar will appear.</p>	<p>The font, colors and scroll bar width are all customizable.</p>

Related Controls

Panel

Tips

Use the Auto height property in conjunction with the Dock = Top property to make the control size to the Caption content.

Relevant Properties

Name	Description	Tips
Alignment	The alignment of the text	See the Right to left property for bi-directional language support.
Caption	Text that is displayed in the control	
Scroll width	Width of scroll bar	

Control Name Notebook**Control Type** Static**Summary of Control**

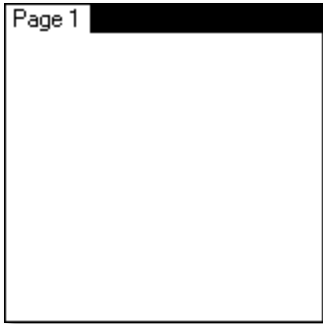
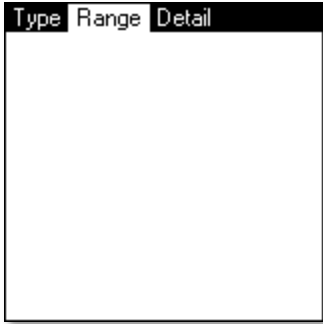
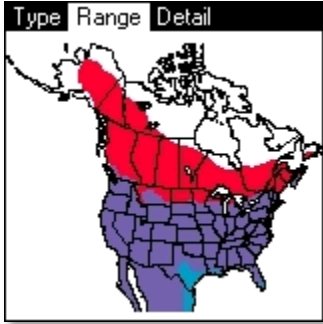
The Notebook control allows other controls to be placed on Pages, which only become visible when their associated page is activated.

The pages themselves are specified by the Pages property. This is a semi-colon delimited list of page titles. For example, setting the Pages property to "Hello;World" will create two pages "Hello" and "World".

In Layout mode, the active page can be changed by setting the "Default Page Index" property.

To place controls on a Page, they must be either created on the page or pasted when the page is the active control.

Pages act a lot like regular panels. For example, other controls can be docked inside them. However, their caption is the Page title, rather than text in the center of the control.

	<p>By default, the Notebook control starts with one page.</p> <p>The Pages property is set to "Page 1".</p>
	<p>Setting the Pages property to "Type;Range;Detail" will create three pages.</p> <p>Setting the Default Page Index property to "2" will activate the "Range" Page.</p>
	<p>Placing an Image control on the Range page and setting the Dock property to "Fill" will place the Image only inside the Range page. Changing to other pages will provide separate pages of content.</p> <p>Set the Default Page Index to each page individually when placing controls on pages.</p>

Related Controls

Panel

Tips




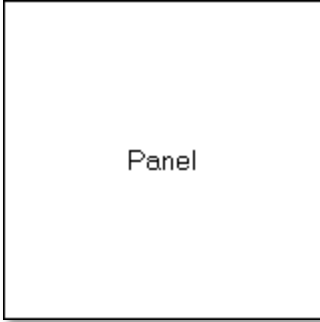
If creating a digital field guide, the Notebook control can be placed inside an Element Container. Then controls like Element Panel, Element Memo and Element Image will pick up their Elements property from the Container.

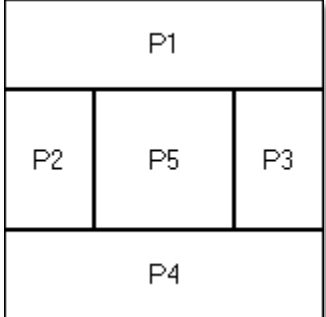
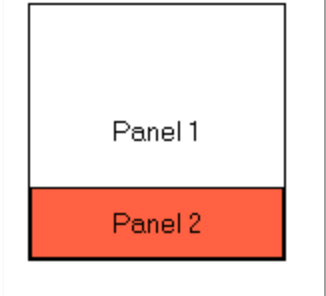
Relevant Properties

Name	Description	Tips
Default Page Index	The default notebook page to be displayed when the screen is loaded	
Pages	Name of pages in the note book separated by a semicolon";"	Example: Page 1;Page 2;Page 3

Control Name Panel**Control Type** Static**Summary of Control**

A Panel control is a simple, but powerful control that can display a text caption, act as a spacer control for layout and be a container for other controls.

	<p>A simple panel control that has Dock set to None. It is located where the user placed it.</p> <p>The Caption property has been set to "Panel".</p> <p>The Border style is set to "Single" with a Border line width of "1".</p>
	<p>By setting the Dock property to "Top", the Panel immediately snaps to the top of the screen.</p>
	<p>Similarly, setting the Dock property to "Bottom", the panel will snap to the bottom of the screen.</p> <p>Left and Right docking will have a similarly predictable outcome.</p> <p>If the control appears to fill the screen, try setting the "Width" or "Height" property to adjust its size.</p>
	<p>If Dock is set to "Fill", then the Panel will size itself to all the available space.</p> <p>In order to compute the available space, the control only considers other controls which have their Dock property set to something other than "None".</p>

	<p>In this case, there are 5 panels:</p> <p>P1 – Dock set to “Top” P2 – Dock set to “Left” P3 – Dock set to “Right” P4 – Dock set to “Bottom” P5 – Dock set to “Fill”</p> <p>Note that P1->P4 could have their Border set to none, in which case it would seem like P5 is free floating. However, it would always be centered on any size screen.</p>
	<p>Panels can be embedded inside other panels.</p> <p>On the left, Panel 2 is embedded inside Panel 1 and has its Dock property set to “Bottom”.</p> <p>To embed a control into a Panel, simply create it on an existing panel by drawing it inside the panel. Alternatively, Paste the control into the Panel by selecting the Panel and then selecting the Paste command.</p>

Panels are a versatile way of creating complex layouts.

Related Controls

Memo

Tips

Experiment with the Dock property, Width and Height to get a feel for how the docking system works. Most screens use Panels for spacing and layout.

Most controls have a Dock property.

Most other controls can be embedded into a Panel control.




Relevant Properties

Name	Description	Tips
Caption	The single line caption displayed by the control.	
Dock	The location the system should dock the control.	Use this property with the Width and Height property as needed.
Use screen name	Set the caption to the screen title.	

Control Name	RangeFinder	Control Type	Static
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Summary of Control

The Range Finder control is a static control that shows data from the last firing of the connected RangeFinder.

 0.00 M  0.0°  0.0°	<p>The values are from top to bottom:</p> <p>Range and range units</p> <p>Azimuth or bearing</p> <p>Slope or inclination</p>
--	--

The range units are specified by the RangeFinder device itself. The control does not attempt to decode the units.

Related Controls

GPS

Element RangeFinder

Tips

This control does not store the data in the sighting. To store the range as part of a sighting, use the `ElementRangeFinder` control.


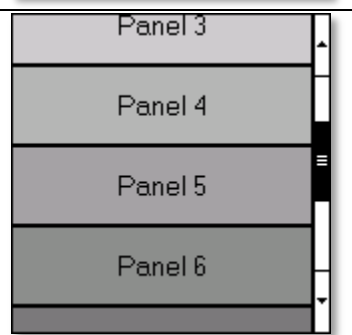
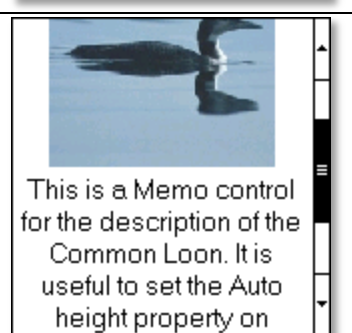
Relevant Properties

Name	Description	Tips
Auto Connect	Turn the range finder on when the control is loaded	
Style	The data that the control displays from the range finder	

Control Name	Scroll box	Control Type	Static
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Summary of Control

The Scroll box control is a container control which automatically adds a vertical scroll bar when the controls it holds are larger than the viewable area.

	<p>Dropping panels one at a time into the Scroll box and setting their Dock to “Top” will cause a scroll bar to appear.</p>
	<p>Moving the scroll bar will move the view to controls that were not visible before.</p>
	<p>Any control can be hosted inside a Scroll box. This is useful for digital field guide like pages.</p>

All controls placed in the Scroll box should have their Dock property set to “Top”.

Usability studies show that while users are comfortable scrolling to see content, it is preferable not to do so. Therefore, consider ordering the content from most important to least important.

The Notebook control is another good way of managing scenarios where there is more content than can easily fit onto a single screen.

Related Controls

Panel

Notebook

Tips

Configuring a Scroll Box control can be tricky, because the Dock property is usually set to “Fill” and this means that there is no way to keep adding new controls.

To solve this, create a new Screen Profile using the Tools->Screen Profiles dialog. Then set this as the Active profile using the Profile drop down just above the Toolbar. Try setting the new profile height to a large value, for example: Width=240, Height=800.

In this way, it will be easy to layout controls as if there was a single long page. When the profile is set to match the real screen size, then the Scroll box will allow scrolling over the whole page.

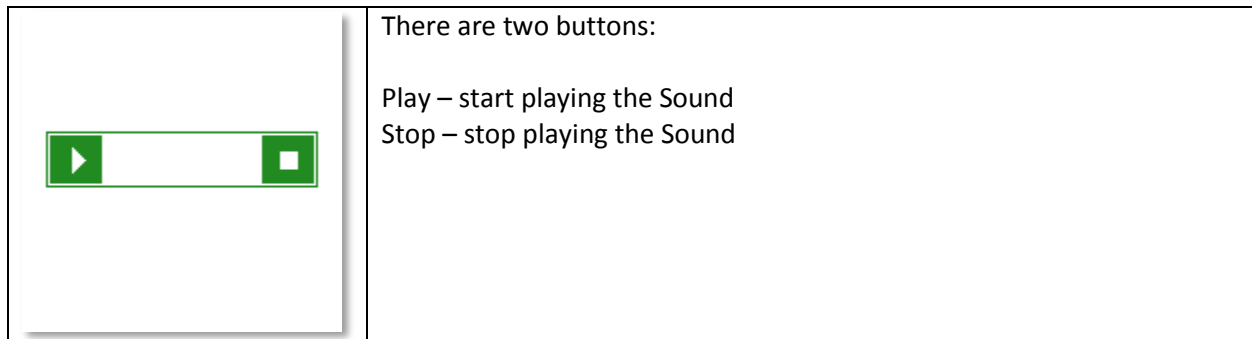
Relevant Properties

Name	Description	Tips
Scroll width	Width of scroll bar	

Control Name	Sound	Control Type	Static
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Summary of Control

The Sound control plays a single sound through the default speakers.



When leaving a screen with the sound control, the sound will immediately stop.

Related Controls

Element Sound
Element Recorder

Tips

The system will play both MP3 and WAV sound files.

MP3 files are preferred, because they have better compression and are therefore more compact.

To embed many sounds throughout an Application, it is recommended that they be associated with Elements. Storage for Elements is much more efficient than simple controls.

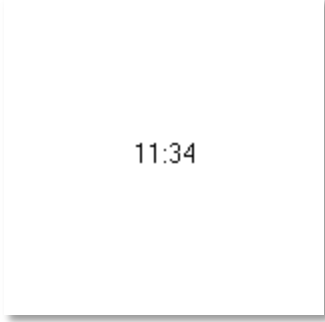
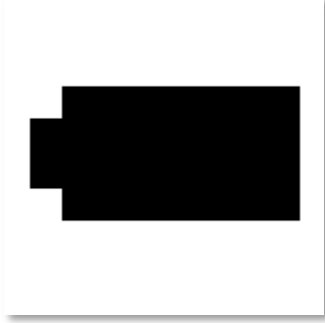
Relevant Properties

Relevant Properties		
Name	Description	Tips
Show Play	Determine whether to display the play button	
Show Stop	Determine whether to display the play button	
Sound	Sound file in .wav or .mp3 format	File is stored in the database and does not need to be stored separately

Control Name System State **Control Type** Static

Summary of Control

The System state control shows state from the device on which it is running. It is dependent on the Style property.

	<p>Style = "Time"</p> <p>The time format is 24 hour.</p>
	<p>Style = "Battery"</p> <p>The representation on the left means fully charged.</p>

Related Controls

Title bar

Tips

The time and battery level are also visible on the Title bar control. This tends to be a less intrusive way of communicating this information.

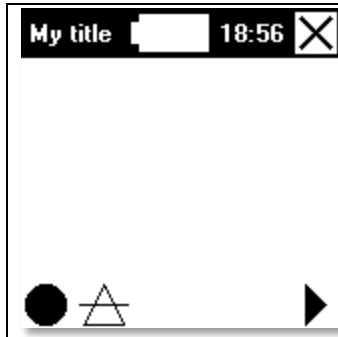
Relevant Properties

Name	Description	Tips
Alignment	Horizontal justification of the control	
Style	Data type display	Time or Battery

Control Name	Title bar	Control Type	Static
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Summary of Control

The Title bar control is a simple panel that contains some system information and a title. It typically resides at the top of a screen.



This Title bar shows the current time, the battery level and the Exit button.

The Exit button will terminate the application.

The Title bar control is used internally on the dialogs. For example, the Options dialog.

The Exit button will quit the current Application and return to the Application selection mode.

The Title bar automatically sizes itself from the system.

Related Controls

Navigator buttons

System state

Panel

Tips

This control is typically not useful, because it is implicitly used by the system.

The “Application Properties” dialog contains the option “Use Title Bar”. When checked, the system will add this control to the top of every screen. If the topmost control is a Panel, it will be replaced. Otherwise, a new control is added.

Relevant Properties

Name	Description	Tips
Caption	Text displayed in the control	
Show Battery	Show the battery charge percentage	
Show Exit	Show the exit button to close the application	
Show Menu	Show the Options button	
Show Okay	Show the okay button which closes the active dialog	Internal use only
Show Time	Show the current time	

Data Controls

Data controls drive the main flow of an Application and allow capture of data.

Data controls control the flow through the application by settings Links. Links specify where the application goes next and are often controlled by the option that was selected on the control itself.

Data controls add data to the current sighting based on user input.

Control Name	Com Port List	Control Type	Data
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Summary of Control

This control is only used on PocketPC and Windows Mobile devices. It allows manual configuration of the COM port that is used for the RangeFinder or GPS connection.

<div> <div>Default</div> <div>COM 1</div> <div>COM 2</div> <div>COM 3</div> <div>COM 4</div> <div>COM 5</div> <div>COM 6</div> <div>COM 7</div> </div>	<p>COM ports (or communication ports) are numbered starting at 1.</p> <p>Each port represents a separate channel on which to receive data. Not all ports are valid.</p>
--	---

This control would typically be placed on a configuration screen.

Ordinarily this control is not needed, because CyberTracker will automatically detect the correct port.

However, there are several cases where it useful:

- If the device has its own GPS and you would like to use an external GPS
- If the RangeFinder is on a well known port and it takes a long time to find it

Related Controls

RangeFinder, Element RangeFinder
GPS

Tips

The “Default” list item means that the system will attempt to scan all ports for the device. This works because both the RangeFinder and GPS output text, which CyberTracker recognizes.

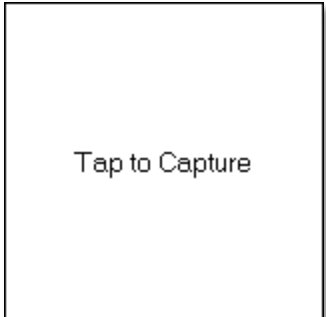
Relevant Properties

Name	Description	Tips
Default port	The default selection on the list.	
Port device type	Specify which device this control should change. Change occurs only after the next button has been pressed.	

Control Name Element Camera **Control Type** Data

Summary of Control

The Element Camera control captures pictures from the device camera. The control itself doesn't implement a camera, but rather requests the built in camera application to launch.

	<p>Tapping on the screen will initiate the camera application.</p> <p>When the application has completed, it returns the image to CyberTracker which will then display it inside this control.</p> <p>Tapping the image again will replace the existing image with a new one.</p>
---	---

The camera application is not standardized; therefore it varies from one device manufacturer to the next. However, they all have the following functions:

1. Capture – take a picture
2. Delete – delete the current picture
3. Return – return to CyberTracker

This control does not support video.

Related Controls

Element Recorder
Element Text Edit

Tips

After the picture has been taken, the built in camera application returns the name of the picture it took. If multiple images were taken (and not deleted) before returning to CyberTracker, they will not be copied into sightings.

It is up to the user to routinely remove these images from the device, otherwise they may fill up the device memory.

Relevant Properties

Name	Description	Tips
Caption	The text that is displayed in the control	
Resolution X	Image resolution width in pixels	If 0, then the default capture size will be used
Resolution Y	Image resolution height in pixels	If 0, then the default capture size will be used
Result Element	Name of Element to be saved under the sighting	If this Element is empty, then the default "Photo" Element will be

used.

Control Name	Element Container	Control Type	Data
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Summary of Control

When using the Element Memo, Element Panel, Element Image or Element Sound controls, the active Element is selected from the current sighting. If any of these controls are embedded into an Element Container control, they will inherit the source Elements property from it.

For example:

Screen A: Radio List of 10 Elements

Screen B: Element Panel with the Elements property set to the same 10 Elements from Screen A

Notice that the Element shown on Screen B will be the selection chosen from Screen A.

If the Element Panel on Screen B (and other related controls) were embedded in an Element Container control, then only the Elements property on the Element Container control needs to be set.

Related Controls

Element Memo

Element Panel

Element Image

Element Sound

Tips

This behavior helps field-guide like scenarios, where depending on the users selection, different content is activated.

Relevant Properties

Name	Description	Tips
Elements	List of Elements to select from. This property overrides the Elements properties of all child controls.	

Control Name	Element Formula	Control Type	Data
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Summary of Control

This control is for making computations based on previously entered sighting data.

The main property of this control is Formula. This represents a simple arithmetic expression. For example: "1 + 2". Expressions also respect operator precedence, so: "2 + 3 * 5" will evaluate to 17. Brackets are also supported, so: "(2 + 3) * 5" will work.

Simple branching is supported with the "if" expression. For example: "if (10 < 20, 100, 200)" translates to: if 10 is less than 20 then return 100 otherwise return 200. The numbers in this expression are themselves expressions.

Boolean operations are supported as "&&", "||", "!".

There are two ways to introduce variables from the sighting: Element Values and Global Variables.

Element Values are properties specified as "Element A..Z". For example, suppose a prior screen set "MyElement" to "5". Then setting the "Element A" property to "MyElement" means that the value assigned to it can be used in an expression. For example:

Sighting data: MyElement=5

Element Formula property "Element A": MyElement

Element Formula property "Formula": "A + 1"

The result will be "6".

Global Variables are values that persist throughout the sighting and across multiple sightings. They are named, meaning they are accessible with a text name. For example, the global variable "MyGlobal" represents a Global Variable. This is accessible from any screen.

The Element Formula control allows creation of these Global Variables by setting "Result Global Value". For example:

Create an Element Formula control on Screen 1

Set the "Formula" property to "15"

Set the "Result Global Value" to "MyGlobalValue"

Create an Element Formula control on Screen 2

Set the "Formula" property to "MyGlobalValue + 10"

The result will be "25", i.e. 15 + 10

Dates can also be created using this control. For example:

Set the "Formula" property to "DATE(2010, 5, 10)"

Notice the result is "40308". This represents a number of days since a specific date.

This can be used for calculations. For example: "DATE(2010, 5, 10) + 5" will be 5 days later. In order to convert the number back to a date, check the "Output as date" property.

In order to store the result of the calculation back into the sighting, set the "Result Element" property.

It is possible to direct the flow of an application based on the result of a calculation. To do this, check the “Link 0” and “Link 1” options in the “Link properties” drop down. Then when leaving “Layout” mode, note that two links appear in the properties section under “Element Formula”. If the result of the calculation is 0, then “Link 0” will be the next screen. If the result of the calculation is 1, then “Link 1” will be the next screen. And so on.

Related Controls

Tips

Counters can be created using this mechanism. For example:

Set the “Formula” to “MyGlobal + 1”

Set the “Result global value” to “MyGlobal”

Notice that every time this screen is reached, the counter increases.

In order to reset this value, another screen can have an Element Formula control with the following:

Set the “Formula” to “0”

Set the “Result global value” to “MyGlobal”

The “Element List” control will output the selection index as a global value if the “Result global value” is specified. This can be used within a formula.

The control can be moved out of view if desired. Alternatively, set the width or height to 0.

Relevant Properties


Name	Description	Tips
Decimals	The number of decimals allowed	
Digits	The number of digit s allowed	
Elements A-Z	Elements from the existing sighting to use as variables in the calculation. For example, setting “Element A” to “MyElement” means that if the Formula contains “A”, it will be translated into the value that “MyElement” holds in the current sighting.	When multiple Elements are selected for one of these properties, their values are added together before being used in the calculation.
Formula	The formula to evaluate. This formula can include simple expressions like “1 + 2” or more complex ones involving data from the current sighting. For example “A*4 + 3” where A is	

	the value of the “Element A” property.	
Fraction	Set to a value between 2 and 9 to enable fractions in output display. For example, if set to 4, then 1.25 will display as “1 ¼”.	
Hidden	Whether or not to display this control.	Since the control can be used purely for internal calculations, it may be desirable to hide it from the user.
Link only when no next	This control also supports 16 links. These can be activated using the “Lock properties” property. Depending on the result of the formula, different Screens can be added to the current sighting. However, this is not always desirable.	
Output as date	Convert the date as number to a date format.	
Result Element	The Element to use for the control result.	
Result Global value	The Global Value to set for the control result.	

Control Name Element Image grid 1 **Control Type** Data

Summary of Control

This control can be used to allow the user to select areas (for example on a map) using a grid style selection method.

	<p>Each cell is represented by an Element from the “Elements” property.</p> <p>Selecting a cell is the same as selecting the matching Element from a list control. The Elements are ordered row by row: top left to bottom right.</p>
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Depending on which block is selected, the appropriate Element will be added to the current sighting.

Related Controls

Element Image Grid 2.

Tips

This control is useful for specifying a rough area of interest. However, it is limited to rectangular blocks. The result of this control can be used to drive the filter in the Element List control.

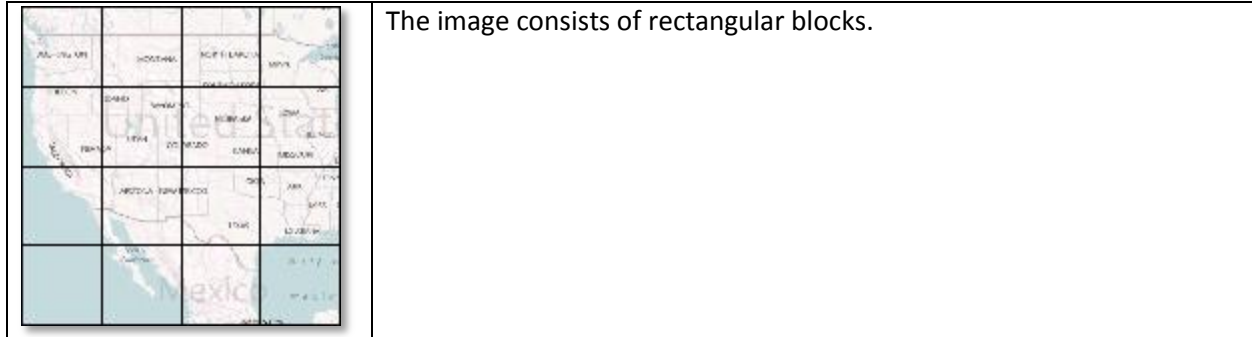
Relevant Properties

Name	Description	Tips
Columns	Number of columns in the grid	
Element	The element which will store the value from this control	
Image	The image file.	This file is managed internally and need not be stored separately
Format	The format style of the resultant row and column selection	Choose between excel and number
Rows	The number of rows in the grid.	

Control Name Element Image grid 2 **Control Type** Data

Summary of Control

This control allows users select a grid block on an image. The selection is returned in a Result Element in either Excel format (A1..An for the first row, B1..Bn for the second row, etc) or Number (1..n for the first row, n+1..2n for the second row, etc).



Related Controls

Element Image Grid 1

Tips

Element Image Grid 1 can be used to filter Elements on subsequent screens.

Element Image Grid 2 can be used to output a value which can be used in a later calculation using the Element Formula control (if Format is “Number”).

Relevant Properties

Name	Description	Tips
Columns	Number of columns in the grid	
Element	The element which will store the value from this control	
Image	The image file.	This file is managed internally and need not be stored separately
Format	The format style of the resultant row and column selection	Choose between excel and number
Rows	The number of rows in the grid.	

Control Name	Element Image	Control Type	Data
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Summary of Control

The Element Image control displays the selected Image property from the specified Elements.

If the Elements property contains multiple Elements, the control will search the current sighting for a match and select that Element.

For example:

Create a Radio List Screen

- Set the Elements property on the List to "Element A", "Element B" and "Element C"
- Associate an Image with each Elements "Image 1" attribute

Create a new Screen and add an Element Image control

- Set the Attribute property to "Image 1"
- Set the Elements property to the same Elements used in the Radio List Screen

Note, when navigating to the screen with the Element Image control, the selected image depends on the selection made on the Radio List screen.

Note, if this control is embedded in an Element Container control, it receives the Elements from the Element Container, rather than its own Elements property.

Related Controls

Image

Element Panel

Element Memo

Element Sound

Element Container

Tips

This control is useful when showing the overall state of their Application.

For example, if the user selected an animal from a long list, the next screen could use this control to show an image of their selection.

Relevant Properties

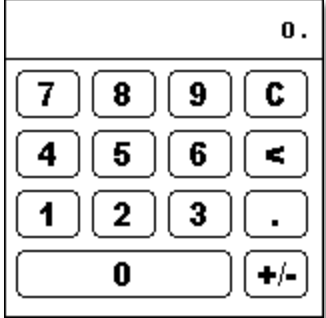
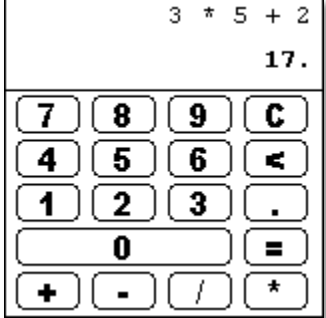

Name	Description	Tips
Attribute	The Element attribute used for the Image. Elements can have multiple images associated with them.	
Elements	An Element or list of Elements to select from.	If multiple Elements are used and none of them are found in the active sighting, the first Element is used.

Stretch	Stretch the image to fit the control bounds.
Proportional	Proportional mode prevents the image from becoming distorted during stretch.

Control Name Element Keypad **Control Type** Data

Summary of Control

This control allows entering of numeric data from a keypad format. The keypad is similar to a calculator.

	<p>A simple keypad.</p> <p>The buttons have been rounded by setting the Button border property to "Round1".</p>
	<p>When the Formula mode property is checked, a formula line appears above the display. This helps with longer calculations.</p>
	<p>When the Password property is set to anything other than "0", then the output value is replaced with asterisks.</p>

The control outputs the value into the Result Element.

The range of the input can be controlled by the Minimum and Maximum properties. Similarly, Digits controls the total number of digits and Decimals allows restriction of accuracy.

Fraction is useful for entering numbers like "1/4" or "3/8". In this case, the "." button changes to an "F" for easy entry. For example, if "Fraction" is set to 5, you can enter the number "22 3/5" using the following key sequence: 2 2 F 3

This control can also be used as a password control. Passwords are useful for locking certain parts of an Application. To activate password mode, simply enter a non-zero value for the password.

Related Controls

Element Formula

Tips

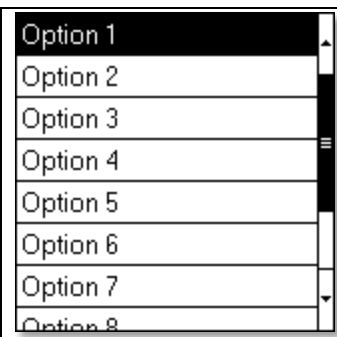
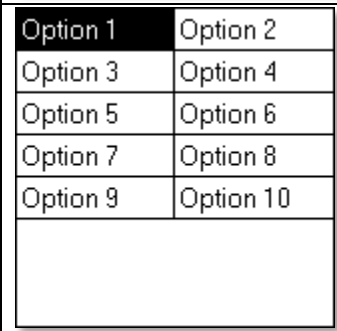
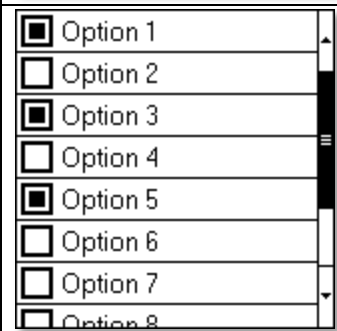
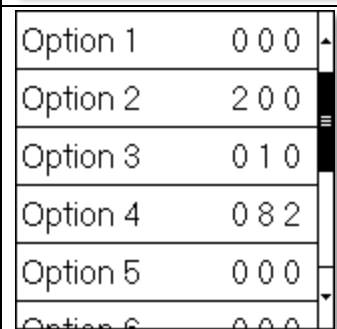
Try out the “Formula” mode. This allows simple calculator like computation with a history at above the input.

When adding a new control, it’s a good idea to spend some time setting up the layout. This can be controlled using the following properties: Button width, button height, display height. The font can also be changed on both the button and the display.

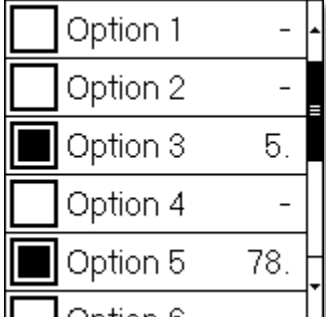
Relevant Properties

Name	Description	Tips
Decimals	The number of decimal places allowed	
Digits	The number of digits allowed	
Fraction	Enable fraction on numbers	Set to a value between 2 and 9 to enable fractions
Minimum Value	The minimum value to accept	
Maximum Value	The maximum value to accept	
Password	The password to use.	The password is only active if its value is not 0.
Password auto next	Determine the functionality if the correct password is entered. “Normal” means that the next screen will be reachable by pressing the next button. “Advance to next screen” means that the next screen will be activated as soon as a correct password is entered. “Shutdown” will terminate the application.	“Shutdown” mode is useful if the application is in “Kiosk mode”. This allows administrators to make system changes to the device in the field.
Require Non-zero	Requires input	Check to prevent non-zero entry
Retain state	The state of this control will be retained from one sighting to the next	
Retain state reset key	The key used to reset the state if “Retain State” is checked. Use this value with the “reset state key” action	
Result element	The result of this control will be	

added to the sighting under this
Element.

Control Name	Element List	Control Type	Data
Summary of Control			
This control allows entering of list data. This control has more options than most others, but is very flexible.			
		A text only Radio list.	
		A Radio List with multiple columns. The order of Elements in multi-column mode is left to right, top to bottom. Set the Columns property to change the number of columns.	
		A Check list. Check lists allow multiple Elements to be selected at once.	
		A Number list, with List mode set to "Number digits". Tapping the top of the number increases the value and the bottom will decrease it. Use the Decimals and Digits property to specify the range.	

	<p>A Number list, with List mode set to “Number fast-tap”.</p> <p>Tapping on the “-” (minus sign) on the left will decrease the number. Anywhere else will increase it by 1.</p>
	<p>A Number list, with the List mode set to “Number keypad”.</p> <p>Tapping on a row will bring up a keypad dialog.</p> <p>Use the Keypad formula mode property to activate Formula mode for this dialog. See the Element Keypad control.</p>
	<p>A Radio list with an icon for each Element.</p> <p>Set the Attribute property to one of the icons or images.</p> <p>To specify an Icon or Image for an Element, use the “Choose columns” button on the Element editor dialog to activate an image column.</p>
	<p>A Check List, where each Element is represented by its icon.</p> <p>Holding the pen down on the image will reveal the caption for the Element.</p>
	<p>Element Lists can also be transparent. In this case, an Image control is underneath.</p>

	<p>If the Number list checks property is set, then numbers are only activated if they are also checked. This is still a Number list because it outputs number values.</p> <p>This is a useful way to specify a “0”, which would otherwise be ignored as an unset value.</p>
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Before setting up the control, it is usually best to add the list items. These are added by using the Elements property.

The largest change in behavior comes from the “List mode” property. This changes the way data is entered. It supports the following:

Radio lists

A radio list is a single selection list. Only one item can be selected at a time. “Auto select index” controls the initial selection. “Auto radio next” will automatically advance to the next screen when a selection is made.

Checkboxes and Checkbox icons

Check lists allow selection of multiple options at the same time.

Number digits, Number fast-tap and Number keypad

These modes allow entry of numbers in various ways.

In “Number digit” mode, values can be changed by tapping on the top or bottom of individual numbers. “Number fast-tap” adds one whenever the number is tapped, but decrements when the “-” sign is pressed.

“Number keypad” will display a keypad when an item is tapped. This is useful when the number must be within a certain range. See the “Minimum value” and “Maximum value” properties.

GPS location

Allows manual entry of the sighting GPS location.

In addition to simple lists, the control also supports Filters. This is very useful for allowing the user to reduce a potentially very large number of items to a more manageable level.

Related Controls

Element Number

Tips

Check out the tutorials and samples for this control.

Relevant Properties

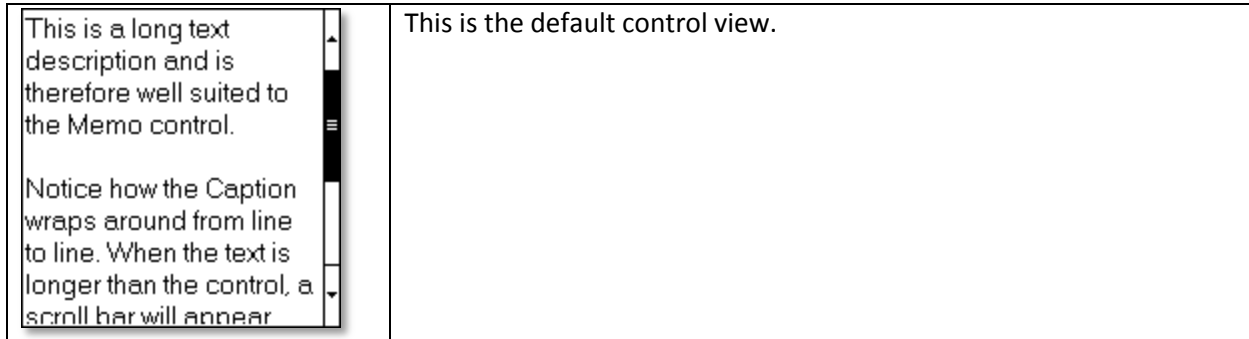
Name	Description	Tips
Alias Override	Override the element name with a specific alias.	
Attribute	The attribute of the Element(s) to use for the list icon.	
Auto Select index	Automatically select this index for Radio lists	0 = none
Auto radio next	For Radio lists, automatically advance to the next screen on selection.	
Block next	For Radio lists, prevent the Next button from working until a selection is made.	
Columns	Specify the number of columns to display.	
Decimals	For Number lists, the number of decimals allowed in the resulting numbers.	
Digits	For Number lists, the number of digits allowed in the resulting numbers.	
Elements	The list items.	
Filter	The active filter for list items.	
Filter Enabled	Determine if the filter is active or not.	
Fraction	For Number lists, when the List Mode is "Number keypad". See the Element Keypad control.	
Hide links	Hide the links displayed when not in Layout mode.	If the list is very large, it can take a long time to switch in and out of Layout mode, because there are so many links. If the screen doesn't need individual links, they can be hidden to boost performance.
List mode	The type of list.	
Minimum value	For Number lists, when the List Mode is "Number keypad". See the Element Keypad control.	
Maximum value	For Number lists, when the List	

	Mode is “Number keypad”. See the Element Keypad control.	
Output Checks	Legacy only, do not use.	
Result element	For Radio lists, output the result to a Result element.	This is useful in cases where there are many screens with the same Elements. For example “Yes”/”No”. By setting this property, each Screen can re-use the “Yes”/”No” Elements and change the way the screen is interpreted.
Result global value	For Radio lists, the index of the selection will be placed into this global value.	This is useful when doing computations depending on the selected list index. See the Element Formula control.
Retain only scroll state	Used in conjunction with “Retain state”. Only the scroll state will be retained.	This is useful when long lists are used. This tracks the scroll position to improve the user experience.
Retain state	Keep track of the control selections between sightings.	
Retain state reset key	Used in conjunction with the “Reset State Key” Action to clear the state of the control. Used in conjunction with the “Retain state” property.	This is useful when resetting the state of the control from another screen.
Save result	Normally enabled, this can be unchecked if the data from the screen should not be added to the sighting.	Be careful about un-checking this option when using filters. Filters require that the selection be part of the sighting data in order to function properly.
Show caption	Controls whether the text caption should be shown.	
Show radio sound	For Radio lists, this option will place a Play button on the selected item. The Element must have an associated sound file.	
Show radio sound stop	For Radio lists, this option will place a Stop button on the selected item. The Element must have an associated sound file.	
Sorted	This property enables alphabetical sorting of Elements.	

Control Name	Element Memo	Control Type	Data
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Summary of Control

This control shows the text property from an Element. The text can be long, in which case the text is scrollable.



To use this control add an Element using the Elements property. If more than one Element is specified, the chosen Element is based on the contents of the current sighting.

For example, if a prior screen has a list specifying Elements “A”, “B” & “C”, then setting the Elements property of this control to “A”, “B” & “C” will mean that the final Element will depend on the selection of the previous list.

Related Controls

Memo
Element Panel
Element Container

Tips

Consider using the Auto height property if the control is placed inside a Scroll box.

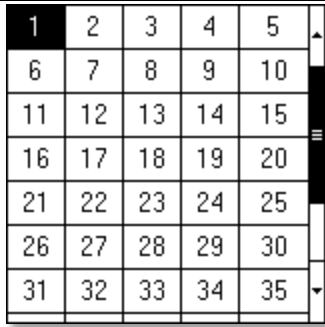
Relevant Properties

Name	Description	Tips
Attribute	The Element text attribute that will be used for the memo text.	

Control Name **Element Number** **Control Type** **Data**

Summary of Control

The Element Number control is used to allow selection of a number in a specific range. The number choices are provided as a Radio list.

1	2	3	4	5	
6	7	8	9	10	
11	12	13	14	15	
16	17	18	19	20	
21	22	23	24	25	
26	27	28	29	30	
31	32	33	34	35	

The range of numbers can be set.

If all the numbers fit onto a single screen, then the scroll bar will not be visible.

The goal is to present the user with a few numbers that they can use to choose from rapidly.

This control is closely related to a radio list.

Related Controls

Element List

Tips

Use the “First value” and “Last value” properties to customize the list values.

The number of columns can be configured to make good use of the available space.

Relevant Properties

Name	Description	Tips
Auto Next	Automatically advance to the next screen when a list selection is made	
Auto Select Index		
Columns	The number of columns the control contains. This may be automatically reduced for smaller profiles	
First Value	The first value in the number list	
Last Value	The last value in the number list.	
Result Element	The result of this control will be added to the sighting under this element	
Result Global Value	The result of this control will be placed in the named global	These can be accessed by other controls such as the element

	value.	formula.
Retain State	The state of this control will be retained from one sighting to the next	
Retain state reset key	The key used to reset the state if “retain state” is checked.	Use this value with the reset state key action.

Control Name	Element Panel	Control Type	Data
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Summary of Control

This control shows an Element name or text in a Panel.

To use this control add an Element using the Elements property. If more than one Element is specified, the chosen Element is based on the contents of the current sighting.

For example, if a prior screen has a list specifying Elements “A”, “B” & “C”, then setting the Elements property of this control to “A”, “B” & “C” will mean that the final Element will depend on the selection of the previous list.

Related Controls

Element Memo
Element Container
Panel

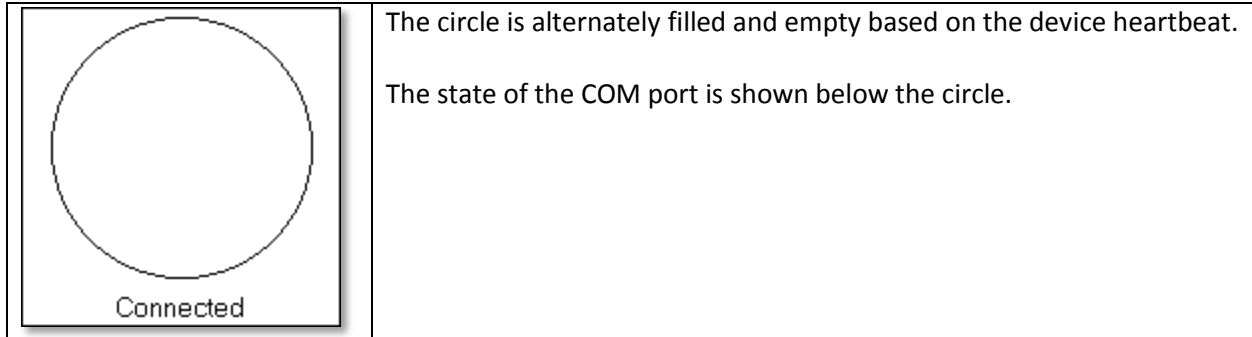
Tips**Relevant Properties**

Name	Description	Tips
Attribute	The attribute of the Element to display.	

Control Name	Element Raindance	Control Type	Data
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Summary of Control

This control interprets data from the Raindance incendiary system (www.raindancesystems.com.au) and uses it to create sightings and timer tracks.



The Raindance incendiary system is designed to be mounted on a helicopter or small plane. It drops capsules which ignite when they reach the ground. This is used for starting controlled fires.

When connected and switched on, the device outputs data via a serial port. If this port is connected to CyberTracker, then it will interpret the messages that are sent. There are three kinds of messages:

- Heartbeat: this is sent every second or so. The circle in the middle of the control alternates on and off as this message is received.
- Capsule/Blank: this is sent when a capsule or blank is dropped
- Status messages: sent when changing drop rates or for errors

The control stores running counts in global values. These global values can be referenced by name in the Element Formula control. In addition, they can also be added to a final status page or sighting.

Related Controls

Element Serial Data

Tips

Relevant Properties

Name	Description	Tips
Action blank	The action to perform when a blank is fired. Options are "Store sighting", "Store Waypoint" or "None".	

Action capsule	The action to perform when a capsule is fired. Options are "Store sighting", "Store Wayoint" or "None".	
Action status	The action to perform when a status message is received. Options are "Store sighting", "Store Wayoint" or "None".	
COM - *	The settings for the COM port connection with the device.	Ensure that these settings are matched by the Raindance machine.
Fast save	Keep the database on the PDA in an open state to improve performance.	In some cases, the device may not be able to keep up with the incoming stream of data. If this happens, check this box to reduce the time the system takes to save. Some validity checks are bypassed, but this is considered safe.
Result bad packets	The global value to store the running bad packet. A bad packet is a information that is received by CyberTracker, but is invalid.	If many of these packets are seen, then the connection to the device may be bad.
Result blank count	The global value to store the running blank count.	
Result capsule count	The global value to store the running capsule count.	
Result capsule flight total	The global value to store the capsule flight total. This number is sent from the machine.	
Result capsule roll count	The global value to store the capsule roll count. This number is sent from the machine.	
Result drop rate	The global value to store the drop rate. Whenever the drop rate changes, the machine sends a message.	
Result heartbeats	The global value to store the running heartbeat count.	
Result lost packets	The global value to store the number of packets that were discarded because they were somehow invalid.	
Result no GPS	The global value to store the running count of the number of times an event occurred (like capsule dropped) when the GPS	

	did not have a good fix.
Status Result Element	An Element used to hold the text of a status code.

Control Name	Element Range Finder	Control Type	Data
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Summary of Control

This control connects to a RangeFinder. Supported RangeFinder technologies are: Laser Atlanta, Trupulse and MDL.

The connection is typically made via BlueTooth.

Connecting requires that the RangeFinder be continually firing. Once detected, CyberTracker will pair to this device quickly in the future (i.e. without needing to continually fire).

The port can be manually specified via the “Com Port List” control.

The port can also be selected if the “Show port select” property is checked.

Related Controls

Element serial data

Configure RangeFinder Action

Com Port List

Tips

Ensure the RangeFinder is correctly paired to your device and that your device is firing continually during detection phase. Once CyberTracker has found the device once, all future connections will go to that location.

If for some reason CyberTracker connected to the wrong device, this information will be reset when it is uninstalled and re-installed on the device.

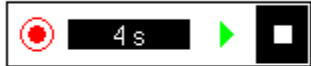
Relevant Properties

Name	Description	Tips
Auto connect	Automatically connect to the RangeFinder if not already connected.	
Auto Next	Automatically advance to the next screen when a range is received	
Required	Block a save or next operation if a range has not been received.	
Show port select	Show the port selection button (top right)	This is recommended if auto-detection is not working well.
Style	Determine the data to display. Options are “State”, “Range” and “All”.	

Control Name Element Recorder **Control Type** Data

Summary of Control

The Element Recorder records sound from the device audio input and adds it to a sighting.

	<p>The control has three buttons, from left to right:</p> <p>Record Play Stop</p> <p>The progress bar in the center displays the amount of audio recorded.</p>
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The Record button starts recording. Recording will stop when the maximum allowed recording time has been reached or the stop button is pressed. If an existing recording has been made, it will be replaced by the new recording.

The Play button will play the current stored recording. It is disabled if no sound is available.

The Stop button will stop recording (in record mode) or stop playback (in playback mode).

Related Controls

Element Camera

Tips

Set the “Maximum record time” and “Delete if short time” property to calibrate the control for the requirements of your project.

Relevant Properties

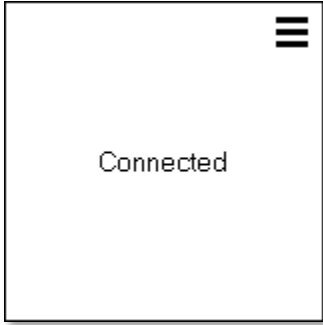
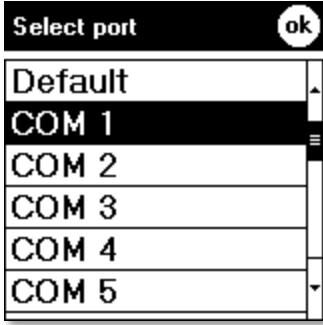
Name	Description	Tips
Confirm replace	If a sound recording is in place and the record button is clicked again, the user will be prompted to delete the prior recording	
Delete if short time	If a sound recording is less than the specified number (in seconds), it will be automatically deleted	
Maximum record time	The maximum allowed recording time.	
Required	Prevent save and next operations if no sound file is	

	present.
Result Element	The result of this control will be added to the sighting under this Element.

Control Name	Element Serial Data	Control Type	Data
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Summary of Control

This control allows connection of CyberTracker to devices that output data via a serial port.

	<p>“Connected” will be replaced with data that is received.</p> <p>The button on the top right corner will bring up the communications (COM) port selection dialog.</p>
	<p>The communications (COM) port selection dialog.</p>

Typical examples would be bar code scanners, RFID scanners and pit tag readers. Devices like this may allow data output to be customized, so that output could be just the relevant information to store.

The data will be stored in Result Element.

Related Controls

Element RangeFinder

Element Raindance

Tips

This control can also be used to experiment with GPS, RangeFinder and other known serial devices. If output is displayed, this indicates a good connection.

If no data is showing up, there is a good chance the “COM - Baud rate” does not match the baud rate on the source device. Please consult the documentation to match this control with the device.

Relevant Properties

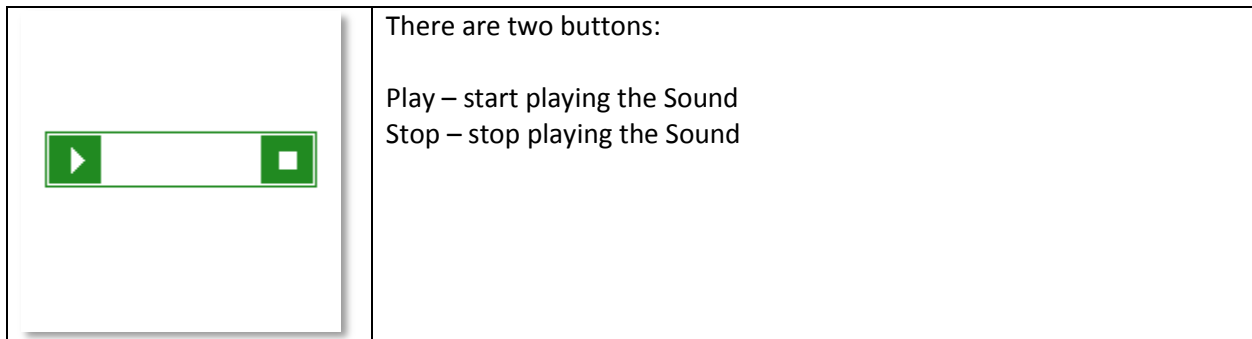
Name	Description	Tips
Auto Next	Automatically advance to the next screen when a line of data is received.	
COM – *	The settings for the COM port	Ensure that these settings are

	connection with the device.	matched by the device being connected.
Result Element	The result of this control will be added to the sighting under this Element.	
Show port select	Check to allow port selection via the button in the top right of the screen.	

Control Name	Element Sound	Control Type	Data
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Summary of Control

This control allows playback of the sound associated with an Element.



To use this control add an Element using the Elements property. If more than one Element is specified, the sound will be chosen based on the contents of the current sighting.

For example, if a prior screen has a list specifying Elements “A”, “B” & “C”, then setting the Elements property of this control to “A”, “B” & “C” will mean that the final sound will depend on the selection of the previous list.

Supported sound file formats are MP3 and WAV.

Related Controls

Sound
 Element Image
 Element Panel
 Element Memo
 Element Container

Tips

The button appearance can be changed significantly by setting the “Button - *” properties. “Border color” will also change the button color.

Every Element has a “Sound” property. To activate it, use the “Choose columns” button on the “Edit Element List” dialog. “Sound” is the last property.

MP3 is the preferred format, because it has better compression than WAV.



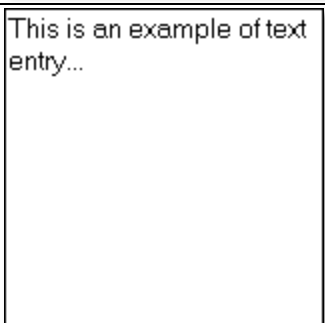
Relevant Properties

Name	Description	Tips
Show Play	Determine whether to display the play button.	
Show Stop	Determine whether to display the stop button.	

Control Name Element Text Edit Control Type Data

Summary of Control

This control is used to enter arbitrary text.

	<p>When there is no text, the control caption reads “Tap to Edit”.</p> <p>If text has been entered, it will be displayed.</p>
	<p>When the control is tapped, a text editor dialog pops and allows text to be entered.</p> <p>On many handheld devices, the activation of text entry activates a soft-keyboard.</p>
	<p>When the “ok” button is pressed on the dialog, the text becomes the caption for the control.</p>

The control alternates between a full screen text entry dialog and normal screen display.

Specify the Result Element to be used as storage for the text that is entered.

A scroll bar will appear to the right of the control if a lot of text is entered.

Related Controls

Element Keypad
Element Number

Tips

Set the Font property to change the text to make it more visible if required.

Use the “One line only” property if you would like text to come out on one line. This is useful for adding people names.

If no “Result Element” property is specified, then CyberTracker will display an error. To fix this, specify a Result Element.

Relevant Properties

Name	Description	Tips
One line only	Force single line entry.	
Required	Input is required	Prevent entry of empty text
Result Element	The result of this control will be added to the sighting under this Element.	
Maximum length	Force a maximum number of letters.	0 means no max.

Control Name	Element Zoom Image	Control Type	Data
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Summary of Control

Element Zoom Image displays an image associated with an Element. Zooming and panning are supported.

	<p>From left to right, the controls are:</p> <ul style="list-style-type: none"> Reset view –resets the zoom so that the entire image is within view Zoom in by 10% Zoom out by 10% Zoom to specified rectangle Pan
--	---

To use this control add an Element using the Elements property. If more than one Element is specified, the image will be chosen based on the contents of the current sighting.

For example, if a prior screen has a list specifying Elements “A”, “B” & “C”, then setting the Elements property of this control to “A”, “B” & “C” will mean that the final sound will depend on the selection of the previous list.

Related Controls

Element Image
Element Container
Zoom Image

Tips

Relevant Properties

Name	Description	Tips
Attribute	The Element image to display. Elements have 8 image slots.	
Elements	Element or list of Elements to select from	
Initial button state	Zoom or Pan	
Smooth pan	Constantly update the image while panning.	This is slower, so should only be used when using small images or a fast PDA.

Control Name	Field Map Inspector	Control Type	Data
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Summary of Control

The Field Map Inspector control works in conjunction with the Field Map. The Field Map must be on the same screen as this control.

If the “Inspector” property of the Field Map control is checked, an “I” icon will appear on the Field Map toolbar. Using this control allows selection of one or more Sightings, Goto or History points.

This control will show the active selection on the Field Map.

To see this in action, try the following:

- Load the “Timer Track” sample
- Create at least one sighting
- Open the GPS screen by tapping on the Navigator GPS button
- Go to the Map tab and select the Inspector icon from the toolbar
- Draw a rectangle around the sighting
- Go to the Inspect tab

Alternatively, building this onto a single screen is easy to do as well:

	<p>Notice that the Inspect icon is active and that two of three sightings are selected.</p> <p>The currently active sighting in the Field Map Inspector (left, bottom) is highlighted on the map.</p> <p>Skipping between sightings using the Inspector navigation buttons (arrows), allows moving between the selected sightings.</p> <p>The Field Map and Field Map inspector also allow selection of Goto points and History Points. The title bar of the inspector on the left shows “Sighting”. This caption will reflect the type of the selection.</p>
--	---

In the GPS dialog, the inspector is on a separate Notebook tab to the map. This is convenient, because they each take up a lot of screen real estate.

The Inspector will connect to the first map it finds on the current screen. The behavior if there are multiple Field Map controls on the screen is undefined and not supported.

Related Controls

Field Map

Tips

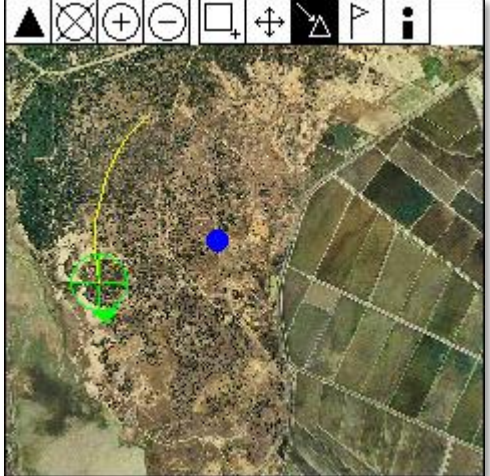
The Field Map Inspector can be configured to output data from the selection to the current sighting. This is useful in scenarios where the user is selecting a previously captured event.

Relevant Properties










Name	Description	Tips
One line	Pick just one line to describe the selection. For Goto this is the Title, for History and Sighting, this is the first row.	Use this to reduce the amount of screen space used by the control.
Result Element	The “One line” text (see above) will be added to the current sighting under the specified Result Element.	
Required	Determine if the selection is required in order to advance to the next screen.	
Show buttons	Determine if the buttons should be visible or invisible. If the buttons are not visible, then the selection cannot be scrolled through.	Use this in conjunction with the “One select” property of the “Field Map” control.
Show type	Determine if the type panel should be visible or invisible.	Use this to reduce the amount of screen space used by the control.

Control Name Field Map**Control Type** Data**Summary of Control**

This control displays a location aware Field Map. The map can be zoomed and panned. It can also track the current location and be used to add a GPS location to a sighting.

	<p>The Field Map shows the current location as a green target. The arrow on the target indicates the current direction of travel.</p> <p>Dots of various colors are shown on the map to indicate Sightings, History or Goto points.</p>
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The control is driven by a row of toolbar icons on the top row:

	Shows the state of the GPS: if the triangle is filled, then the GPS has a fix. Clicking the button will center the map on the current location.
	Reset zoom to default
	Zoom in by 10%
	Zoom out by 10%
	Rectangle zoom mode: selecting this button will put the control into a mode where a rectangle can be drawn on the map. The map will then zoom to the specified rectangle. The map will remain proportional.
	Pan mode: selecting this button will put the control into a mode where moving across the map with the mouse/pen down will move the map.
	Follow mode: selecting this button will cause the map center to track the users location.
	Flag drop mode: selecting this button will allow the user to place a flag on the map. This feature is used to manually specify the GPS location for a sighting. This button is not visible when viewing the GPS state (via the Navigator triangle button).
	Inspector mode: selecting this button will allow the user to select one or more goto points,

	history points or sightings. This selection can be viewed in the “Field Map Inspector” control.
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The field map itself is an ECW file produced by technology from Erdas (<http://www.erdas.com>). This technology is used under a limited free license.

ECW files can be created using the “Field map” button on the toolbar of the “Map view”.

Related Controls

Navigator & Navigator GPS

GPS

Field Map Inspector

History Inspector

Goto List

Tips

The default field map for an Application can be specified in the “Application Properties” dialog on the “Field map” tab. If this is not specified, then the system will use the globally specified map from the “Tools->Default field map” main menu.

Specifying the field map for an application has two effects:

- The GPS screen (accessible from the triangle button on the Navigator) will have a map tab on the notebook control.
- If a GPS point is taking a long time to acquire during sighting Save, then pressing the “Skip” button will allow the user to manually place a flag indicating their location on the map. This will become the sighting location.

Relevant Properties

Name	Description	Tips
Auto Connect GPS	Force the GPS to turn on when this control is loaded	
Filename	The map image to use for the field map. The image should be in ECW format.	
Initial button state	The control button that is down by default when the control loads	
Inspector	The Inspector icon will be visible. Used in conjunction with a Field Map Inspector control.	
Longitude (left)	Longitude of the left edge of the image in decimal degrees.	
Latitude (top)	Latitude of the top edge of the	

	image in decimal degrees.
Longitude (right)	Longitude of the right edge of the image in decimal degrees.
Latitude (bottom)	Latitude of the bottom edge of the image in decimal degrees.
Lock 100	Disallow zooming in beyond 100 percent.
Marker flag color	Color of the flag marker
Marker GPS color good	Color of the GPS triangle marker when the GPS has a good fix.
Marker GPS color bad	Color of the GPS triangle marker when the GPS has no fix
Marker size	The size in pixels of the markers that are overlaid on the map.
One select	Inspector selection will only select on item at a time.
Position flag	Manual GPS position placement feature. Check this to allow setting of the sighting position with the Flag button
Retain state	The state of this control will be retained from one sighting to the next
Smooth pan	Constantly update the image while panning. This is slower because it requires more image updates.
Timer track color	Color of the timer tracks

Control Name	Goto list	Control Type	Data
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Summary of Control

This control displays a list of Goto points. A “Goto point” is a GPS location with a text description that can be set as a navigation target. CyberTracker will navigate to these points by showing the distance and direction.

—	The top row contains the currently selected Goto point.
Gate 1.011 km	The top list contains newly added points.
Location 1 801 m	The bottom list contains points added via the “Application Properties” dialog.
Location 2 4191.7 km	
Location 3 4191.7 km	

The control actually displays two lists, one on top of the other. They are separated by a double line. If a list has no items, then it is hidden.

The top list is for dynamically added points. These are points added in the field. See the “Set pending goto” action.

The second list is for statically added points. These are set at design time from the “Application Properties” dialog on the “Goto” tab.

Selecting an item from the list immediately sets the global navigation target. This target can be viewed by creating a GPS control and setting the “Style” property to “Goto pointer” or “Goto data”.

Related Controls

Set pending goto Action

GPS: Style = Goto pointer & Goto data

Tips

The “Timer Track” application uses the “Set pending goto” action to demonstrate population of the Goto list in the field.

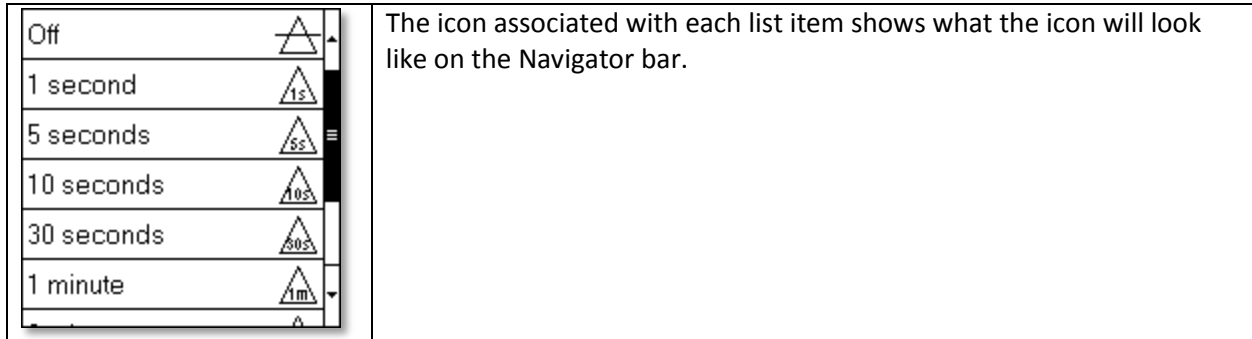
Relevant Properties

Name	Description	Tips
Columns	Number of columns	

Control Name	GPS Timer List	Control Type	Data
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Summary of Control

The GPS Timer List enables changing the frequency of the track log timer. Specifically, the time governs how often a timer point is logged.



The track timer obeys only to the most recent setting and there are multiple ways of changing the timer frequency. For example, “Application Properties” on the desktop has a “GPS” tab which sets the default settings. Using this control or a “Configure GPS Action” will override those settings.

The timer has two modes of operation:

- Less than 1 minute
- 1 minute or more

A setting of less than 1 minute will mean that CyberTracker will keep the device in the ON state. This is less battery efficient.

A setting of 1 minute or more will mean that CyberTracker will let the device go to sleep and then wake it up to take a reading. This is useful when transportation is slow and battery life is important. Note, that after taking a reading, CyberTracker will turn the device off, unless there was user interaction (in which case the default auto-off timer of the device will be used).

The Navigator GPS button displays the state of the track timer. There are several states:

- If the triangle has a number inside – the number is the frequency of the timer
- Empty triangle with line through it – the track timer is OFF
- Empty triangle – the last track point was not available
- Filled black triangle – the last track timer reading was successful

Related Controls

GPS, Navigator, Navigator GPS, Com Port List
Configure GPS Action

Tips

The exact times that show on the control are customizable.

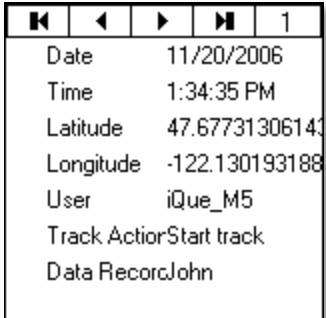
Relevant Properties

Name	Description	Tips
Columns	The number of columns the control contains. This may be automatically reduced for smaller profiles	
Item_caption_1	Caption used for the list entry	
Item_Enabled_1	Determine if the entry should be enabled	
Item_Timeout_1	Timer setting in seconds for the entry	
Right to left	Right justified text	
Auto Next	Automatically advance to the next screen when a list selection is made	
Show Caption	Show or hide the caption for each list item	

Control Name	History Inspector	Control Type	Data
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Summary of Control

This control displays History items in an inspector format. Navigation buttons allow scrolling between items.

 <p>The dialog displays name + value pairs in a list.</p> <p>If the list is longer than the screen, a scroll bar will appear.</p>	
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To configure history items for your application, do the following on the Desktop:

1. View->Report, select the Table View
2. Click on Export View toolbar button
3. Specify a File name, select "Export Rule File" for the "Save as type" and click OK
4. View->Applications, click Application Properties
5. Select the History tab, specify the file saved in (3) and click OK

Now simply dropping a History Inspector control on any screen will show the sightings.

Related Controls

Navigator Options: there is a History Inspector in a tab on the Options dialog.

Field Map: the field map will show history items.

Tips

By specifying an export rule in the Application Properties, this activates the History tab on the Options dialog.

The content for the History comes from the query specified in the export rule. The export rule is a query, rather than a block of data. Each time the rule is used, it queries the database for the latest content. Therefore, as new sightings come in, they will become part of the history.

Relevant Properties

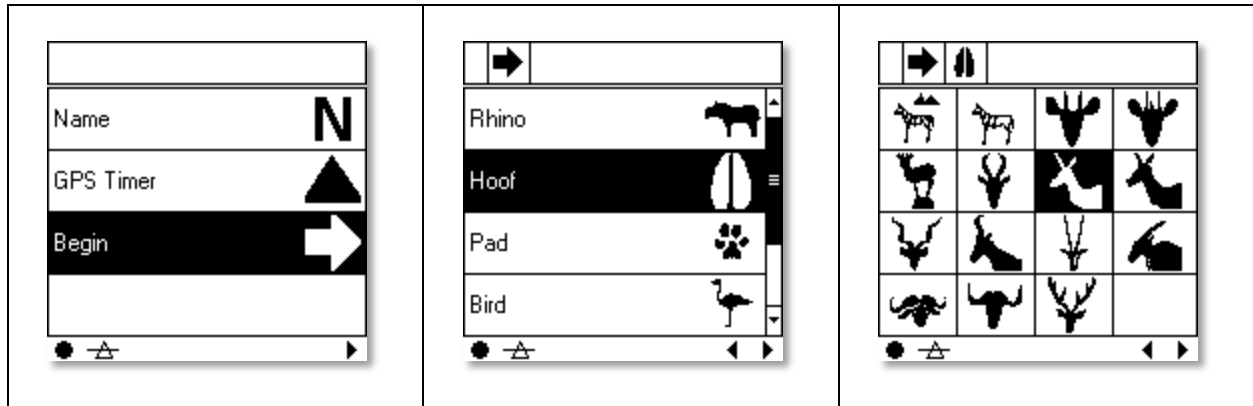
Name	Description	Tips
None		

Control Name	Icon Title	Control Type	Data
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Summary of Control

This control provides a horizontal row of icons for each Element in the current sighting.

For example:



Note that the title contains the icon of the selection from the prior screen.

Related Controls

Navigator Options

Tips

This control places a burden on the Application author to always associate icons with each possible selection. For this reason, this control has fallen out of mainstream use.

Research seems to indicate that most users are already sensitive to context, so the additional context available via this control does not provide a lot of value. In addition, the Options button (filled circle in the bottom left corner of the screen) on the Navigator control is configured to show the current sightings data.

Relevant Properties

Name	Description	Tips
None		

Control Name	Navigator Back	Control Type	Data
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Summary of Control

This control functions as the Back button on the Navigator control.

Back returns one screen to the prior visited screen in an Application.

If the Caption property is set, then the default Image is not used.

If the Image property is set, then neither the Caption property nor the default image is used.

Related Controls

Navigator
Navigator controls

Tips

This button has the same functionality when used as part of the Navigator control. However, the Navigator control will make it invisible when there is no prior screen. However, this typically only happens on the first screen.

Using the Image property may make the Application less scalable on different screen types.

Relevant Properties

Name	Description	Tips
Caption	The text that is displayed in the control.	This is not used if the Image property is set.
Center	Center the image within the control	Only used when the Image property is used.
Image	The image file.	This overrides the Caption and default image.
Proportional	Proportional mode prevents the image from becoming distorted when stretching.	Only used when the Image property is used.
Stretch	Stretch the image to fit the control	Only used when the Image property is used.

Control Name	Navigator GPS	Control Type	Data
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Summary of Control





This control functions as the GPS button on the Navigator control.

The GPS button opens the GPS dialog. This dialog allows the user to see the state of the GPS. It also displays the Field Map.

If the Caption property is set, then the default Image is not used.

If the Image property is set, then neither the Caption property nor the default image is used.

The default image on the button also displays the state of the GPS:

	The line through the triangle means that the GPS is off. This does not necessarily mean the GPS is off in general, but CyberTracker does not have an open connection to it.
	<p>The line through the triangle means that the GPS is off (see above).</p> <p>The "1s" inside the triangle means that the track timer is set at 1 second intervals.</p> <p>This state occurs when CyberTracker tries to connect to the GPS, but times out while trying to receive data. This typically happens when the GPS is low on battery or there is another connection problem.</p>
	<p>The GPS is on and the track timer is set at 1 second intervals.</p> <p>The last attempt to get a valid position was not successful. However, CyberTracker is actively trying to receive a position.</p> <p>This state occurs when CyberTracker has first connected to the GPS.</p> <p>This state will also occur when moving through areas where reception is poor.</p>
	<p>The GPS is on and the track timer is set at 1 second intervals.</p> <p>The last attempt to get a valid position was successful.</p>

Related Controls

Navigator
Navigator controls

Tips

This button has the same functionality when used as part of the Navigator control.

Using the Image property may make the Application less scalable on different screen sizes and resolutions.

The different states of the GPS are not visible if using the Caption or Image.

Relevant Properties

Name	Description	Tips
Caption	The text that is displayed in the control.	This is not used if the Image property is set.
Center	Center the image within the control	Only used when the Image property is used.
Image	The image file.	This overrides the Caption and default image.
Proportional	Proportional mode prevents the image from becoming distorted when stretching.	Only used when the Image property is used.
Stretch	Stretch the image to fit the control	Only used when the Image property is used.

Control Name	Navigator Home	Control Type	Data
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Summary of Control

This control functions as the Home button on the Navigator control.

The Home button returns to a prior screen by going back through the visited screens list until the “Home screen” screen is reached. If the Home screen property is left blank, then the selected screen is the first screen.

If the screen referred to by the Home screen property is not found while going back through the screen list, then this will have the effect of stopping at the start screen.

The effect of this button is pressing Back multiple times until the Home screen is reached. Therefore, the state of the screens after the Home screen may be lost.

Related Controls

Navigator

Navigator controls

Tips

This button has the same functionality when used as part of the Navigator control. It is not enabled by default on the Navigator control.

Using the Image property may make the Application less scalable on different screen sizes and resolutions.

This button is typically used to return the user to a known prior location in the Application. It could be used to refer to any prior screen and there could be more than one of these buttons.

Relevant Properties

Name	Description	Tips
Caption	The text that is displayed in the control.	This is not used if the Image property is set.
Center	Center the image within the control	Only used when the Image property is used.
Image	The image file.	This overrides the Caption and default image.
Proportional	Proportional mode prevents the image from becoming distorted when stretching.	Only used when the Image property is used.
Stretch	Stretch the image to fit the control	Only used when the Image property is used.
Home screen	The screen to stop at when going back through the visited screens.	If the screen has not been visited, the start screen will be used.

Control Name Navigator Jump **Control Type** Data

Summary of Control

This control is not available on the Navigator control. It is used to jump to another screen within the Application.

The Jump button changes screens by going back through the visited screens list until the “Base screen” screen is reached. It then adds the “Jump screen” as the next screen in the screen list and advances to it.

If the Base screen property is left blank, then the selected screen is the first screen.

If the screen referred to by the Base screen property is not found while going back through the screen list, then this will have the effect of stopping at the start screen.

The effect of this button is pressing Back multiple times until the Base screen is reached. Therefore, the state of the screens after the Base screen may be lost.

Related Controls

Navigator controls

Tips

This button is a useful way of bypassing the need to press “Next” to go to a screen, i.e. pressing it will perform the jump immediately.

Using this button may confuse the user, because it is not clear what will happen when pressing back after having used the Jump.

Relevant Properties

Name	Description	Tips
Caption	The text that is displayed in the control.	This is not used if the Image property is set.
Center	Center the image within the control	Only used when the Image property is used.
Image	The image file.	This overrides the Caption and default image.
Proportional	Proportional mode prevents the image from becoming distorted when stretching.	Only used when the Image property is used.
Stretch	Stretch the image to fit the control	Only used when the Image property is used.
Base screen	The screen to use as the base of the Jump. The system will go back to this screen before advancing to the Jump screen.	If this screen has not been visited, the start screen will be used.
Jump screen	The screen to jump to.	Be careful not to jump to a screen that has already been

visited in the current screens list.
If the screen has already been
visited, consider using the
“Navigator home” button
instead.

Control Name	Navigator Next	Control Type	Data
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Summary of Control

This control functions as the Next button in the Navigator control.

The Next button advances to the next screen in the screen list. The screen list is an internal list of screens that have already been visited or are still to be visited.

If the “Next screen” property is specified, it will be added to the screen list before the system advances.

Moving to the next screen has side effects. For example: many of the Data controls use this opportunity to add their results to the current sighting.

The Back button will undo the effects of pressing the Next button.

If there is no next screen in the screen list, then pressing this button will cause a fault message to appear. The fault message is “No next screen”.

Related Controls

Navigator

Navigator controls

Tips

This button has the same functionality when used as part of the Navigator control.

Using the Image property may make the Application less scalable on different screen sizes and resolutions.

Relevant Properties

Name	Description	Tips
Caption	The text that is displayed in the control.	This is not used if the Image property is set.
Center	Center the image within the control	Only used when the Image property is used.
Image	The image file.	This overrides the Caption and default image.
Proportional	Proportional mode prevents the image from becoming distorted when stretching.	Only used when the Image property is used.
Stretch	Stretch the image to fit the control	Only used when the Image property is used.
Next screen	The screen to add to the screen list before advancing.	This property is optional. There is no need to set it if another control will add a screen to the screen list.

Control Name Navigator Options **Control Type** Data

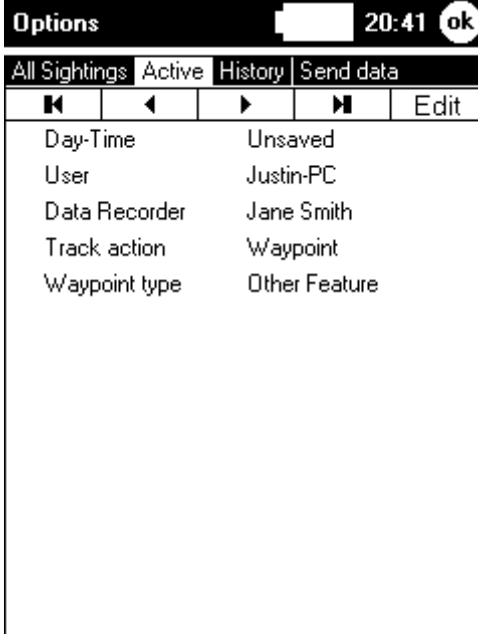
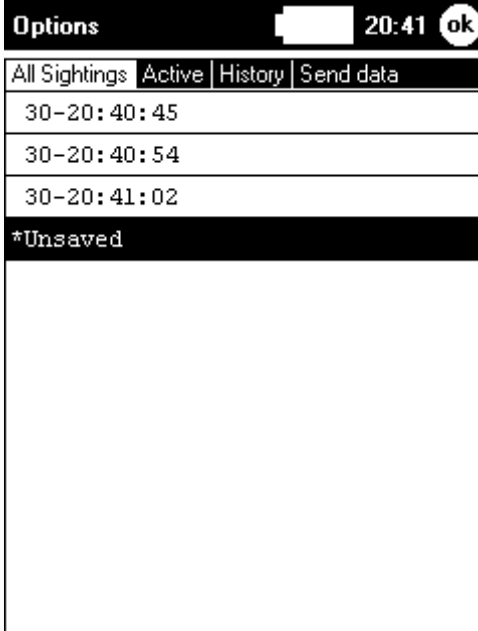
Summary of Control

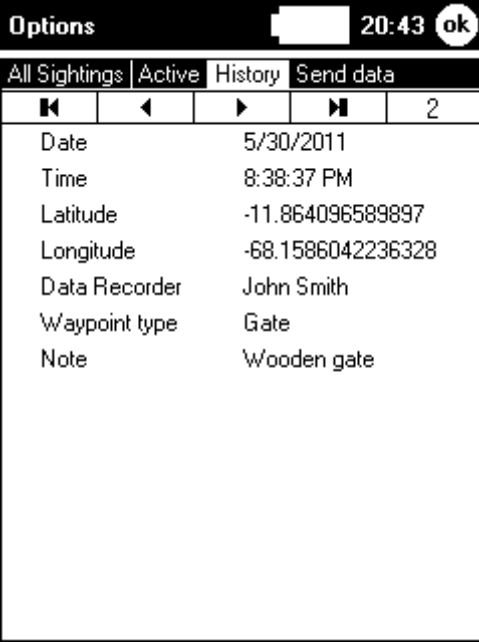
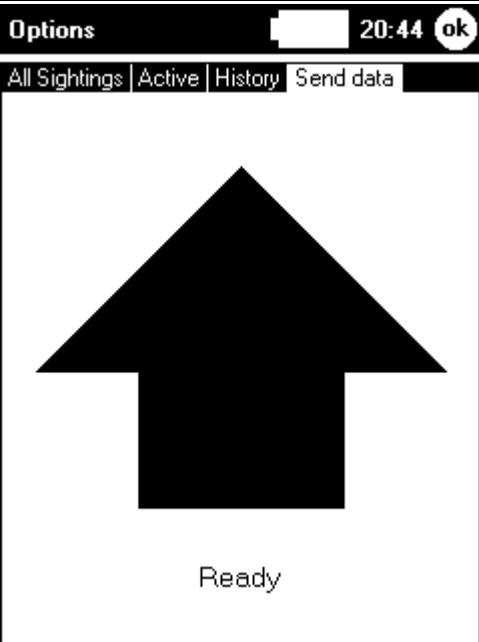
This control functions as the Options button on the Navigator control.

If the Caption property is set, then the default Image is not used.

If the Image property is set, then neither the Caption property nor the default image is used.

The Options button opens the Options dialog. This dialog allows the user to see the state of the current sighting. It also allows viewing and editing of all previously captured sightings.

	<p>The “Active” tab shows the selected sighting. If the Options button has just been pressed then this is the current sighting.</p> <p>Using the “first”, “previous”, “next” and “last” buttons allows navigation through the sightings that have already been created.</p> <p>The “Edit” button will begin edit mode on the selected sighting.</p>
	<p>The “All Sightings” tab shows all sightings in a list, sorted by the time they were created. The format is:</p> <p>Day of month Hour Minute Second</p> <p>The current sighting is denoted with an asterisk. This is the sighting that will be edited if the “Ok” button is pressed in the top right corner.</p>

	<p>The History tab is only available if an “Export rule” has been specified in the “History” tab of the “Application Properties” dialog on the desktop application.</p> <p>The number in the far right box is the current history item number.</p>
	<p>The “Send data” tab appears when transfer settings have been configured on the “Transfer” tab of the “Database properties” dialog on the desktop application.</p> <p>If the up arrow is blacked out, then this is a button that can be pressed. The effect of pressing it will be to package the current sightings up and send them using the specified settings.</p> <p>If the up arrow is empty (i.e. just outlined), then there is no data to send.</p>

Related Controls

Navigator
Navigator controls

Tips

This button has the same functionality when used as part of the Navigator control.

Using the Image property may make the Application less scalable on different screen sizes and resolutions.

Relevant Properties

Name	Description	Tips
Caption	The text that is displayed in the control.	This is not used if the Image property is set.
Center	Center the image within the control	Only used when the Image property is used.
Image	The image file.	This overrides the Caption and default image.
Proportional	Proportional mode prevents the image from becoming distorted when stretching.	Only used when the Image property is used.
Stretch	Stretch the image to fit the control	Only used when the Image property is used.

Control Name	Navigator Save	Control Type	Data
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Summary of Control

This control functions as the Save button on the Navigator control.

If the Caption property is set, then the default Image is not used.

If the Image property is set, then neither the Caption property nor the default image is used.

The Save button starts the save process. The save process has three parts:

- Take a GPS reading [optional]
- Store the sighting to permanent storage
- Undo the state of all the screens until the Save screen is reached.

If the "Save screen" link is not specified, then the target is the first screen.

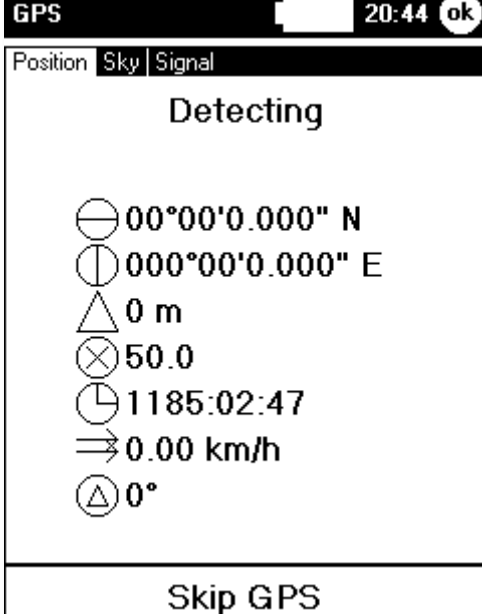
On the Navigator control, "Save screen" is called "Save Target".


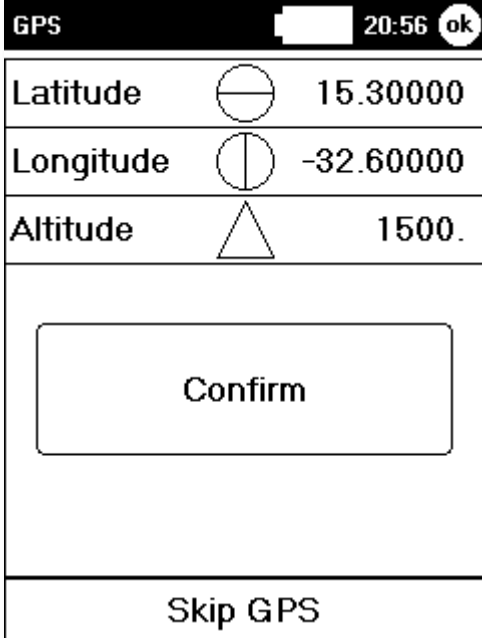
There are two types of button: Save1 and Save2 as specified by the "Save type" property. They are identical, but allow two different Save screens. This is useful when expressing the following meaning:

- Save 1: Save and return to the Start screen
- Save 2: Save and make another similar observation

A GPS reading will not be taken if the sighting already has a GPS position. For example, if a "Snap GPS" Action was used on a prior screen. In addition, editing a sighting does not cause a new GPS position to be taken.

When the Save button does open the GPS reader dialog, the dialog has several states:

	<p>The Position, Sky and Signal tabs show the current state of the GPS.</p> <p>This is very similar to the GPS dialog that is displayed by pressing the Navigator GPS button.</p> <p>The "Skip GPS" button at the bottom is used to give up on the GPS. This would be done if the GPS has no power or the conditions are such that no fix can be reached.</p> <p>Pressing the "Skip GPS" button could do one of three things:</p> <ul style="list-style-type: none"> - Complete the sighting with no GPS coordinates - Show a Field Map if a map is available - Begin Manual GPS entry
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	<p>The Field Map state allows the user to manually specify the location of the sighting by using the Flag icon.</p> <p>See the “Field Map” control for a detailed description of each of the buttons.</p> <p>When the Flag is highlighted on the toolbar, pressing a location on the map will set that position as the GPS location for the sighting. When this happens, the save operation is complete.</p> <p>Pressing “Skip GPS” on this screen will cause the sighting to be saved with no GPS coordinates.</p>
	<p>Manual GPS entry will occur if the “Manual GPS entry on Skip” option is checked on the “GPS” tab of the “Application Properties” dialog.</p> <p>Manual entry is useful if a separate GPS is available.</p> <p>Pressing the “Confirm” button will set the shown position as the GPS location for the sighting. When this happens, the save operation is complete.</p> <p>Pressing “Skip GPS” on this screen will cause the sighting to be saved with no GPS coordinates.</p>

Related Controls

Navigator
Navigator controls

Tips

This button has the same functionality when used as part of the Navigator control.

Using the Image property may make the Application less scalable on different screen sizes and resolutions.

Relevant Properties

Name	Description	Tips
Caption	The text that is displayed in the control.	This is not used if the Image property is set.
Center	Center the image within the control	Only used when the Image property is used.
Image	The image file.	This overrides the Caption and default image.
Proportional	Proportional mode prevents the image from becoming distorted when stretching.	Only used when the Image property is used.
Stretch	Stretch the image to fit the control	Only used when the Image property is used.
Save screen	The screen to return to once Save has occurred.	Leaving this blank will return to the first screen.
Save type	Allows two different save buttons.	See the Navigator control regarding Save Targets.
Take GPS	Take a GPS reading as part of the save operation.	No reading will be taken if the sighting already has a GPS location.
Take GPS skip timeout	Number of seconds before the "Skip" button shows.	This number should be set to a non-zero number if users are finding that they press the Skip Button accidentally.

Control Name	Navigator Skip	Control Type	Data
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Summary of Control

This control functions as the Skip button on the Navigator control.

If the Caption property is set, then the default Image is not used.

If the Image property is set, then neither the Caption property nor the default image is used.

The Skip button is most useful for Filters where complete input is not required to narrow down the options.

For example, suppose there is a simple filter of 4 screens: 1, 2, 3 & 4. If the selection on Screen 1 reduces the filter set to 3 items, then it makes sense to skip directly to Screen 4.

For more information, see Filters.

To enable this option on the Navigator control, do the following:

1. Check the "Skip screen" item in the "Lock properties" property
2. Check the "Show skip" property

If the "Skip screen" that the link points to contains an "Element List" control which has a filter applied, then the button will display the number of items on that list.

Related Controls

Navigator

Navigator controls

Tips

This button has the same functionality when used as part of the Navigator control.

Using the Image property may make the Application less scalable on different screen sizes and resolutions.

Relevant Properties

Name	Description	Tips
Caption	The text that is displayed in the control.	This is not used if the Image property is set.
Center	Center the image within the control	Only used when the Image property is used.
Image	The image file.	This overrides the Caption and default image.
Proportional	Proportional mode prevents the image from becoming distorted when stretching.	Only used when the Image property is used.
Stretch	Stretch the image to fit the control	Only used when the Image property is used.

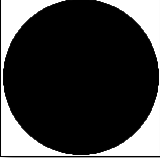
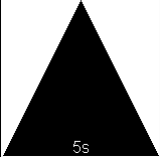
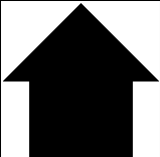
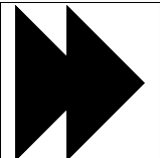
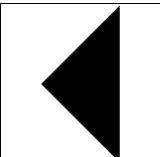
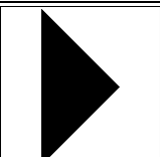
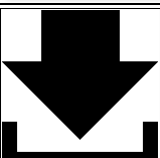
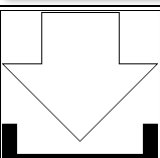
Skip screen	The screen link to skip to.	The screen should contain an Element List with an active filter.
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Control Name Navigator **Control Type** Data

Summary of Control

The Navigator control incorporates the individual Navigator buttons into a single control.

See the documentation for each button. The buttons are:

	Navigator Options.
	Navigator GPS.
	Navigator Home.
	Navigator Skip.
	Navigator Back.
	Navigator Next.
	Navigator Save Type 1.
	Navigator Save Type 1.

Related Controls

Navigator buttons.

Tips

The Navigator Jump button cannot be displayed on the Navigator control. This button must be added to a screen separately.

Relevant Properties

Name	Description	Tips
Show Back	Back button visibility	
Show GPS	GPS button visibility	
Show Home	Home button visibility	
Show Next	Next button visibility	
Show Options	Option button visibility	
Show Save 1	Save 1 button visibility	
Show Save 2	Save 2 button visibility	
Take GPS reading	Causes the Save 1 and Save 2 buttons to take GPS reading before saving	
Take GPS Skip Timeout	The number of seconds to wait before displaying the Skip button on the GPS reader screen	If set to 0 then the Settings from the Application Properties dialog will be used.

Control Name	Owner Information	Control Type	Data
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Summary of Control

The Owner Information control is designed to allow Applications to be signed and distributed as products.

Related Controls

None.

Tips

This feature is not currently supported.

Relevant Properties


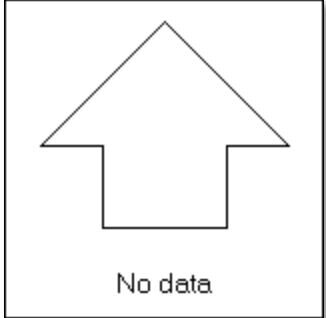
Name	Description	Tips
Style	The type of information to show.	

Control Name	Send Data	Control Type	Data
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Summary of Control

This control executes a manual data upload operation. Send data will package the existing sightings into a CTX file and upload them according to the rules on the “Transfer” tab of the “Database Properties” dialog.

The button has two states:

	<p>The filled state will show when either of the following conditions are met:</p> <ol style="list-style-type: none"> 1. There are sightings which have not yet been packaged. 2. There is a CTX file in the Outgoing folder on the device. This CTX file was generated by a previous press of this button. <p>The caption below the up-arrow describes the current state of the operation. This can be removed using the “Hide state” property.</p>
	<p>The blank state occurs when there is nothing to send.</p> <p>The caption below can be removed using the “Hide state” property.</p>

Related Controls

Navigator Options (because the “Send data” button is available from the Options dialog).

Tips

Check out the “Navigator Options” control.

Relevant Properties

Name	Description	Tips
Hide state	Hide the text below the up arrow.	

Actions

Actions are invisible controls that execute specialized functions.

Control Name	Add Attribute	Control Type	Action
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Summary of Control

The Add Attribute Action will add a single Attribute to the current sighting. This is particularly useful for adding metadata to a sighting.

For example, this could be used to tag each sighting with the name of the Application which produced it.

The Attribute will be added to the sighting when the Navigator Next or Navigator Save button is used. Similarly, Navigator Back will undo the effect of this Action.

Related Controls

Add User Name

Tips

The attribute can only be used to add text values.

Relevant Properties

Name	Description	Tips
Result Element	The result of this control will be added to the sighting under the specified Element.	
Value	The text value to be assigned to the Element property	

Control Name	Add User Name	Control Type	Action
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Summary of Control

The Add User Name Action will add the name of the device as a single Attribute to the current sighting.

The User Name comes from the device itself and is typically assigned when the device is first connected to the desktop PC. However, it often also has a default value. To see and modify the device name, go to the Settings menu (on the device) and look for “About” or “Device Information”. It can also be changed from the desktop when the device is connected.

The User Name will be added to the sighting when the Navigator Next or Navigator Save button is used. Similarly, Navigator Back will undo the effect of this Action.

Related Controls

Add Attribute

Tips

It usually makes sense to add this Action to the first screen of an Application. This way, it will be included in every sighting.

If the project has numerous devices, this can be a useful mechanism to troubleshoot faulty devices. For example, if bad data always comes back from a particular device.

Relevant Properties

Name	Description	Tips
Result Element	The result of this control will be added to the sighting under this Element	There is a default Result Element, which need not be changed.

Control Name	Configure GPS	Control Type	Action
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Summary of Control

The Configure GPS Action enables control over the GPS on whichever Screen it is placed. This Action will override any prior settings that have been made.

This Action takes effect as soon as the screen is loaded.

Related Controls

Configure RangeFinder Action.

“Application Properties” can also be used to change the default startup GPS settings for the entire Application. However, the default settings will be overridden by this action.

GPS Control.

Navigator GPS Control.

GPS Timer List Control.

Tips

This Action is most useful in two cases:

1. On a start Screen which begins a track, e.g. starting a transect or path
2. To pause a track, i.e. to temporarily disable the track timer

The effects of this Action are undone by navigating back by one screen in the Application. To make the change permanent, either save the sighting or loop back to an existing screen.

Relevant Properties

Name	Description	Tips
Sighting accuracy	The required accuracy of the GPS for sightings	1= Most, 49= least. Multiply by 10 meters for approximate accuracy.
Sighting fix count	The number of fixes required before GPS position is taken.	This is to prevent inaccurate readings that occur when the GPS is first turned on.
Track accuracy	The required accuracy of the FPS for timer tracks.	1= most, 49= least. Multiply by 10 meters for approximate accuracy.
Track timer	The frequency of readings	In seconds. Set to 0 to turn off.
User Range Finder for altitude	Replace the Altitude field with the last RangeFinder range.	The RangeFinder should be enabled and taking readings continually.

Control Name	Configure Range Finder	Control Type	Action
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Summary of Control

The Configure Range Finder Action enables control over the range finder connection state. The connection state is whether or not CyberTracker has a live connection to the range finder device.

This is useful when the RangeFinder connection needs to be maintained. In this case, it can be combined with the “Use RangeFinder for altitude” property of the Configure GPS Action.

Related Controls

RangeFinder static control.

Element RangeFinder data control.

Tips

Most range finders are connected using Bluetooth. The Bluetooth connection should be previously configured using the connection system provided by the device.

Documentation for connecting the RangeFinder to the PDA should accompany the RangeFinder.

The effect of this Action is undone by going back in the Application. To retain the change, either save the sighting or loop back to an existing screen.

Relevant Properties

Name	Description	Tips
Connected	Set the connected state of the Range Finder.	

Control Name	Configure Save Targets	Control Type	Action
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Summary of Control

When the Save button is pressed, CyberTracker saves the current sighting and tries to navigate back to the screen specified by the “Save Target”.

If the “Save Target” of the Navigator Save control (or Navigator control) is left blank, the system will navigate back to the default save target. This is normally blank (meaning the first screen), but it can be specified using this Action.

Related Controls

Navigator Save
Navigator

Tips

This Action is most useful when re-using common parts of an application. For example:

The start screen has options X and Y which each go to their own screen: ScreenX and ScreenY.

ScreenX and ScreenY ask a specific question relevant to X and Y.

ScreenX and ScreenY both have the same next screen: ScreenN.

ScreenN has a save button on the Navigator control.

When saving, we would like ScreenN to take the user back to ScreenX or ScreenY, depending on which route they came from.

The solution is to place this Action on ScreenX (set “Default Save Target 1” to ScreenX) and on ScreenY (set “Default Save Target 1” to ScreenY). Then when the user presses the save button on ScreenN, the Save Target will be correct.

Relevant Properties

Name	Description	Tips
Default save 1 target	The default value of the save target for save 1.	
Default save 2 target	The default value of the save target for save 2.	

Control Name	Reset State Key	Control Type	Action
--------------	-----------------	--------------	--------

Summary of Control

Several Controls have a “Retain state” property. When checked, this means that their state will be retained between sightings. For example, the selection of an Element List control will be retained from one sighting to the next.

These Controls have an additional property called “Retain state reset key”.

This Action will reset the state of the Control with the matching key.

Related Controls

Element List
Element Keypad
Element Number

Tips

This Action is useful when a Control is keeping track of a users selection so that it is easy to see which items have already been selected.

At some point, the user may want to start fresh. At this time, lead them to a screen with this action and the state on the control will be reset.

Note: the value of the “Reset key” must be equal to the value of the “Retain state reset key” on the control to be reset.

Relevant Properties

Name	Description	Tips
Reset Key	The name of the key used to identify the state to be reset	

Control Name	Set Pending Goto	Control Type	Action
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Summary of Control

The Goto system allows users to provide pre-defined points of interest on the desktop. These points can be used as navigation targets on the PDA. However, this doesn't help when trying to return to a previously visited point.

Activating a "Set Pending Goto" action means that the next sighting saved will also create a dynamically defined Goto point. Note that this is in addition to saving the sighting.

This is illustrated in the "Timer Track" sample Application.

Related Controls

Goto List

Navigator GPS

See also: "Application Properties" -> "Goto" tab on the desktop in the Screen designer.

Tips

Most Applications could benefit from a path that contains this Action. The cost is low and it means that any time a sighting is saved, it will be easy to navigate back to it.

Relevant Properties

Name	Description	Tips
Title Element	The Element value in the current sighting to be appended to the prefix to create the Goto name	
Title prefix	The text to prefix the name of the new Goto with.	

Control Name	Snap GPS Position	Control Type	Action
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Summary of Control

Snap GPS Position takes a GPS reading as soon as the Next button is pressed.

Normally, the GPS position is taken just before the sighting is saved. In certain designs, this may not be ideal, especially when the observer is moving.

If a position could not be acquired when the Next button is pressed, the message “GPS not acquired” will be displayed.

If “Snap GPS Position” is successful, then there is no GPS screen when saving the sighting.

Related Controls

Snap Time.

Tips

This Action works best when a timer track is activated (at 30 seconds or less), because this means that the GPS will be left on. If the GPS is on, it will be more likely to have a position immediately available when the Next button is pressed on a screen containing this Action.

Relevant Properties

Name	Description	Tips
Auto connect	Force GPS to turn on when control is loaded	
Required	If enabled, Next will be blocked until GPS has a fix.	
Latitude Element	The Element to use for Latitude. If left blank, the default is used.	
Longitude Element	The Element to use for Longitude. If left blank, the default is used.	
Altitude Element	The Element to use for Altitude. If left blank, the default is used.	
Accuracy Element	The Element to use for Accuracy. If left blank, the default is used.	

Control Name	Snap Last GPS Position	Control Type	Action
--------------	------------------------	--------------	--------

Summary of Control

Snap Last GPS Position sets the GPS fix for the current sighting to the fix from the prior sighting.

Related Controls

Snap GPS Position

Configure GPS

Tips

This Action is useful when creating many sightings in a single location. By building an Application that takes a GPS fix once at the start, all subsequent sightings can use the same location without worrying about losing a fix or having the sightings all have a slightly different location.

By un-checking "Required", the system will still take a GPS reading on Save for the first sighting.

Relevant Properties

Name	Description	Tips
Required	Whether a prior GPS reading is required.	If checked, then Next and Save operations will be blocked if no last GPS could be found. The message will be "GPS not acquired".
Latitude Element	The Element to use for Latitude. If left blank, the default is used	
Longitude Element	The Element to use for Longitude. If left blank, the default is used.	
Altitude Element	The Element to use for Altitude. If left blank, the default is used.	
Accuracy Element	The Element to use for Accuracy. If left blank, the default is used.	

Control Name	Snap Time	Control Type	Action
--------------	-----------	--------------	--------

Summary of Control

Snap Time sets the timestamp of the current sighting as soon as the Next button is pressed. Normally, the sighting time is taken when the sighting is saved.

Related Controls

Snap GPS Position
Snap Last GPS Position

Tips

This Action is useful when recording time sensitive behaviors, i.e. the time should be taken as soon as the sighting starts, rather than when it ends.

Relevant Properties

Name	Description	Tips
Date Element	The Element to use for the Date. If left blank, the default is used.	
Time Element	The Element to use for the Time. If left blank, the default is used.	