Wind Chill Application Sample Help

Sample Description: Wind Chill

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For Help on Help, Press F1

Wind Chill

The Wind Chill application was developed to help demonstrate the steps for building a sample Envelop application. These steps are covered in Envelop's main help under Tutorial 3: <u>Building an Application</u>. Please consult this on-line tutorial for step-by-step instructions for building the Wind Chill application.

Background Information

Wind Chill is a computed estimate of how chilly the wind makes a person feel in cold weather. The harder the wind blows, the colder you feel. The harder the wind, the faster a person loses body temperature. For example, if the outside temperature is 10 degrees Fahrenheit and the wind speed is 10 miles-per-hour, the wind chill temperature is equal to -9 degrees Fahrenheit. This means that a person loses as much body temperature under these temperature and wind conditions as they would if the temperature was -9 degrees Fahrenheit and no wind.

The wind chill temperature is not a precise measurement of cold because temperature and wind speed are not the only reasons a person feels cold. A person who is thin or who is wearing damp clothing, will lose more body temperature than a person who is heavier or who is wearing dry clothing.

Wind chill temperatures do provide a basis for understanding the effect of wind in cold weather. Wind chill measurements were first developed in 1939 from experiments performed in Antarctica. The U.S. National Weather Service is an agency who reports wind speeds in miles per hour and temperature in Fahrenheit.

Equivalent Temperatures

Wind Chill Temperature Examples

Wind	(mph)			Temperature (degrees		grees	Fahrenheit)				
calm			30	20	10	0	-10	-20	-30	-40	
											-
5			27	16	6	- 5	-15	-26	-36	-47	
10			16	4	-10	-21	-33	-46	-58	-70	
15			9	- 5	-18	-32	-45	-58	-72	-85	
20		- [4	-10	-25	-39	-53	-67	-82	-96	

Operation Instructions

To operate the Wind Chill application, use the mouse to change the values of the wind speed and temperature scrollbars. This will automatically compute and display actual temperatures and wind chill temperatures.

You may also use the wind speed scrollbar to set a specific wind speed, then click the corresponding option buttons to convert the wind speed from miles-per-hour to kilometers-per-hour.

Finally, you may use the temperature scrollbar to set a specific temperature, then click the corresponding option buttons to convert the temperature from kilometers-per-hour to milesper-hour.