File | Exit...

The **Exit** command enables you to finish your work with the program.

The **Exit** command displays the Exit dialog box. This dialog box lets you decide whether you really want to terminate the program. At this point, you can still change your mind and move back to your work.

Conversions | Polar to rectangular...

The **Polar to rectangular** command enables you to make a conversion from the polar system to the rectangular system, i.e., you can compute the needed coordinates of the station from given bearing and distance values.

The **Polar to rectangular** command displays the Polar to rectangular dialog box. In this dialog box you enter coordinates of the first station, bearing, and distance between the stations. Coordinates of the second station are computed and displayed.

Conversions | Rectangular to polar...

The **Rectangular to polar** command enables you to make a conversion from the rectangular system to the polar system, i.e., you can compute the needed bearing and distance between stations from given coordinates of those stations.

The **Rectangular to polar** command displays the Rectangular to polar dialog box. In this dialog box you enter coordinates of the first and second stations. Bearing and distance between stations are computed and displayed.

Conversions | Azimuth to bearing...

The **Azimuth to bearing** command enables you to make a conversion from azimuth to bearing, i.e., you can obtain the proper quadrant and angle value from a given azimuth.

The **Azimuth to bearing** command displays the Azimuth to bearing dialog box. In this dialog box you enter an azimuth. The corresponding bearing is computed and displayed.

Conversions | Bearing to azimuth...

The **Bearing to azimuth** command enables you to make a conversion from bearing to azimuth, i.e., you can obtain the azimuth value from given quadrant and angle values.

The **Bearing to azimuth** command displays the Bearing to azimuth dialog box. In this dialog box you enter a bearing. The corresponding azimuth is computed and displayed.

Conversions | Feet to meters...

The **Feet to meters** command enables you to make a conversion from feet to meters, i.e., you can obtain the distance value expressed in meters from a given distance measured in feet.

The **Feet to meters** command displays the Feet to meters dialog box. In this dialog box you enter a distance in feet. The corresponding distance in meters is computed and displayed.

Conversions | Meters to feet...

The **Meters to feet** command enables you to make a conversion from meters to feet, i.e., you can obtain the distance value expressed in feet from a given distance measured in meters.

The **Meters to feet** command displays the Meters to feet dialog box. In this dialog box you enter a distance in meters. The corresponding distance in feet is computed and displayed.

Conversions | Zenith to horizontal...

The **Zenith to horizontal** command enables you to make a conversion from a distance measured at a zenith angle to its corresponding horizontal distance.

The **Zenith to horizontal** command displays the Zenith to horizontal dialog box. In this dialog box you enter the zenith angle value and the measured distance. The true horizontal distance is computed and displayed.

Miscellaneous | Angle computations

Addition...
Subtraction...

Angle computations | Addition...

The **Addition** command enables you to add two angle values and obtain their sum.

The **Addition** command brings up the Angle addition dialog box. In this dialog box you enter two angle values. The sum of those values is computed and displayed.

Angle computations | Subtraction...

The **Subtraction** command enables you to subtract one angle value from another and obtain their difference.

The **Subtraction** command brings up the Angle subtraction dialog box. In this dialog box you enter two angle values. The difference between those values is computed and displayed.

Miscellaneous | Angles from bearings...

The **Angles from bearings** command enables you to compute values of angles between two bearings.

The **Angles from bearings** command brings up the Angles from bearings dialog box. In this dialog box you enter two bearing values. The angles between those bearings are computed and displayed.

Help | Contents

The **Contents** command enables you to access the on-line help facility. Alternatively, you can press the F1 key to get help corresponding to your current action.

Help | Search for Help on...

The **Search for Help on** command lets you look for different Help topics using keywords.

Help | How to use Help

The **How to Use Help** command presents a tutorial explaining how to use the Windows Help facility.

Help | About...

When you choose the **About** command from the Help menu, a dialog box appears, showing copyright and version information.

Window | Cascade

The **Cascade** command stacks all open windows on the program's desktop so they overlap and only part of each underlying window is visible.

Window | Arrange icons

The **Arrange Icons** command rearranges any icons on the program's desktop. Rearranged icons are evenly spaced, beginning at the lower left corner of the desktop.

Some of the open windows must be minimized for this command to work.

Window | Close all

The **Close all** command closes all open windows on the program's desktop.

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Dialog boxes

A dialog box is a special kind of window. There are few differences between dialog boxes and regular windows - for example, dialog boxes cannot be resized or zoomed. You can close a dialog box by clicking on its close icon or by pressing the Esc key.

Surveyor's Conversions uses two types of dialog boxes. The first type is a modal dialog box. When such a dialog box is open, it is the only thing that is active at a time. You cannot switch to another window or activate a menu as long as you are in the dialog box's mode. One example of this type of a dialog box is the *Program Information* dialog box. The other type, a modeless dialog box, will allow you to do other things at the same time. Any of the dialog boxes used in the *Conversions menu* can serve as an example of a modeless dialog box type.

Dialog boxes contain various elements called controls. Controls let you manipulate information and they only affect things within the dialog box. There are several types of controls: buttons, check boxes, radio buttons, input lines.

You can move around in a dialog box (between controls) by pressing either the Tab key (this moves forward) or the Shift-Tab key (this moves backward).

Exit dialog box

The **Exit** dialog box is where you can decide whether to quit the program or not.

The *OK* button lets you quit.

The *Cancel* button lets you go back and continue your work.

Polar to rectangular dialog box

The **Polar to rectangular** dialog box is where you do the polar to rectangular conversion.

The *First station* button lets you enter coordinates of the first station. When you press this button, the Coordinates dialog box is displayed. In this dialog box you enter both the North and East coordinates. The actual values of those coordinates are displayed in the text box on the right side of the *First station* button.

The *Bearing* button lets you enter the bearing of the line connecting two stations. When you press this button, the Bearing dialog box is displayed. In this dialog box you enter the bearing. The actual value of that bearing is displayed in the text box on the right side of the *Bearing* button.

The *Distance* button lets you enter the distance between two stations. When you press this button, the Distance dialog box is displayed. In this dialog box you enter the distance. The actual value of that distance is displayed in the text box on the right side of the *Distance* button.

The *Second station* text box displays the result of the conversion, i.e., the computed coordinates of the second station.

The *Cancel* button lets you quit this conversion.

Rectangular to polar dialog box

The **Rectangular to polar** dialog box is where you do the rectangular to polar conversion.

The *First station* button lets you enter coordinates of the first station. When you press this button, the Coordinates dialog box is displayed. In this dialog box you enter both the North and East coordinates. The actual values of those coordinates are displayed in the text box on the right side of the *First station* button.

The *Second station* button lets you enter coordinates of the second station. When you press this button, the Coordinates dialog box is displayed. In this dialog box you enter both the North and East coordinates. The actual values of those coordinates are displayed in the text box on the right side of the *Second station* button.

The *Bearing* and *Distance* text boxes display the results of the conversion, i.e., the computed bearing and distance between stations.

The *Cancel* button lets you quit this conversion.

Azimuth to bearing dialog box

The **Azimuth to bearing** dialog box is where you convert an azimuth to a bearing.

The *Azimuth* button lets you enter the azimuth to be converted. When you press this button, the Azimuth dialog box is displayed. In this dialog box you enter the azimuth. The actual value of that azimuth is displayed in the text box on the right side of the *Azimuth* button.

The *Bearing* text box displays the result of the conversion, i.e., the computed bearing.

The *Cancel* button lets you quit this conversion.

Bearing to azimuth dialog box

The **Bearing to azimuth** dialog box is where you convert a bearing to an azimuth.

The *Bearing* button lets you enter the bearing to be converted. When you press this button, the Bearing dialog box is displayed. In this dialog box you enter the bearing. The actual value of that bearing is displayed in the text box on the right side of the *Bearing* button.

The *Azimuth* text box displays the result of the conversion, i.e., the computed azimuth.

The *Cancel* button lets you quit this conversion.

Feet to meters dialog box

The **Feet to meters** dialog box is where you convert a distance in feet to a distance in meters.

The *Feet* button lets you enter the distance to be converted. When you press this button, the Distance dialog box is displayed. In this dialog box you enter the distance. The actual value of that distance is displayed in the text box on the right side of the *Feet* button.

The *Meters* text box displays the result of the conversion, i.e., the computed distance in meters.

The *Cancel* button lets you quit this conversion.

Meters to feet dialog box

The **Meters to feet** dialog box is where you convert a distance in meters to a distance in feet.

The *Meters* button lets you enter the distance to be converted. When you press this button, the Distance dialog box is displayed. In this dialog box you enter the distance. The actual value of that distance is displayed in the text box on the right side of the *Meters* button.

The *Feet* text box displays the result of the conversion, i.e., the computed distance in feet.

The *Cancel* button lets you quit this conversion.

Zenith to horizontal dialog box

The **Zenith to horizontal** dialog box is where you convert a distance measured at a zenith angle to a horizontal distance.

The *Zenith angle* button lets you enter the measured angle. When you press this button, the Angle dialog box is displayed. In this dialog box you enter the angle. The actual value of that angle is displayed in the text box on the right side of the *Zenith angle* button.

The *Measured distance* button lets you enter the distance to be converted. When you press this button, the Distance dialog box is displayed. In this dialog box you enter the distance. The actual value of that distance is displayed in the text box on the right side of the *Measured distance* button.

The *Horizontal distance* text box displays the result of the conversion, i.e., the computed horizontal distance.

The *Cancel* button lets you quit this conversion.

Angle addition dialog box

The **Angle addition** dialog box is where you add two angle values and obtain their sum.

The *First angle* button lets you enter the first angle to be added. When you press this button, the Angle dialog box is displayed. In this dialog box you enter the angle. The actual value of that angle is displayed in the text box on the right side of the *First angle* button.

The *Second angle* button lets you enter the second angle to be added. When you press this button, the Angle dialog box is displayed. In this dialog box you enter the angle. The actual value of that angle is displayed in the text box on the right side of the *Second angle* button.

The *Sum* text box displays the result of the addition, i.e., the computed sum of the two angles.

The *Cancel* button lets you quit the addition.

Angle subtraction dialog box

The **Angle subtraction** dialog box is where you subtract one angle value from another and obtain their difference.

The *First angle* button lets you enter the angle value which the second one is to be subtracted from. When you press this button, the Angle dialog box is displayed. In this dialog box you enter the angle. The actual value of that angle is displayed in the text box on the right side of the *First angle* button.

The *Second angle* button lets you enter the angle value to be subtracted from the first one. When you press this button, the Angle dialog box is displayed. In this dialog box you enter the angle. The actual value of that angle is displayed in the text box on the right side of the *Second angle* button.

The *Difference* text box displays the result of the subtraction, i.e., the computed difference of the two angles.

The *Cancel* button lets you quit the subtraction.

Angles from bearings dialog box

The **Angles from bearings** dialog box is where you compute angles between two lines with known bearings.

The *Bearing 1* button lets you enter the first bearing. When you press this button, the Bearing dialog box is displayed. In this dialog box you enter the bearing. The actual value of that bearing is displayed in the text box on the right side of the *Bearing 1* button.

The *Bearing 2* button lets you enter the second bearing. When you press this button, the Bearing dialog box is displayed. In this dialog box you enter the bearing. The actual value of that bearing is displayed in the text box on the right side of the *Bearing 2* button.

The *Angle 1* and *Angle 2* text boxes display the results of the computation, i.e., the values of two angles between the given bearings.

The *Cancel* button lets you quit this computation.

Note:
Currently, only one possible line layout is taken into consideration, i.e., the direction of the second line follows the direction of the first line - like two consecutive courses in a traverse.

Angle dialog box

The **Angle** dialog box is where you enter the angle value required by several computations and conversions.

The *Deg.* input box lets you enter the degrees value.

The *Min.* input box lets you enter the minutes value.

The *Sec.* input box lets you enter the seconds value.

The *OK* button lets you accept the values entered in input boxes.

The *Cancel* button lets you ignore the values entered in input boxes.

You can move around this dialog box by pressing either the Tab or Shift-Tab keys.

Azimuth dialog box

The **Azimuth** dialog box is where you enter the azimuth value required by several computations and conversions.

The *Deg.* input box lets you enter the degrees value.

The *Min.* input box lets you enter the minutes value.

The *Sec.* input box lets you enter the seconds value.

The *OK* button lets you accept the values entered in input boxes.

The *Cancel* button lets you ignore the values entered in input boxes.

You can move around this dialog box by pressing either the Tab or Shift-Tab keys.

Bearing dialog box

The **Bearing** dialog box is where you enter the bearing value required by several computations and conversions.

The *N/S* input box lets you enter the first direction letter, being either N for North or S for South.

The *Deg.* input box lets you enter the degrees value.

The *Min.* input box lets you enter the minutes value.

The *Sec.* input box lets you enter the seconds value.

The *E/W* input box lets you enter the second direction letter, being either E for East or W for West.

The *OK* button lets you accept the values entered in input boxes.

The *Cancel* button lets you ignore the values entered in input boxes.

You can move around this dialog box by pressing either the Tab or Shift-Tab keys.

Coordinates dialog box

The **Coordinates** dialog box is where you enter the coordinate values required by several computations and conversions.

The *North* input box lets you enter the North coordinate value.

The *East* input box lets you enter the East coordinate value.

The *OK* button lets you accept the values entered in input boxes.

The *Cancel* button lets you ignore the values entered in input boxes.

You can move around this dialog box by pressing either the Tab or Shift-Tab keys.

Distance dialog box

The **Distance** dialog box is where you enter the distance value required by several computations and conversions.

The *Distance* input box lets you enter the distance value.

The *OK* button lets you accept the value entered in the input box.

The *Cancel* button lets you ignore the value entered in the input box.

You can move around this dialog box by pressing either the Tab or Shift-Tab keys.

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General Information

Welcome to the Surveyor's Conversions calculation program. This program is designed to do your conversions in an easy way.

All of the program's functions are accessed through pull-down or pop-up menus. To learn how to use them, please refer to the Using menus section.

All the data regarding conversions is entered or changed using dialog boxes. This allows for easy correction of mistakes.

On-line help is available for all menu commands, dialog boxes, windows etc. To see a help screen corresponding to your current action, simply press the F1 key.

Conversions

Surveyor's Conversions enables you to make following conversions:

Azimuth to bearing
Bearing to azimuth

Feet to meters
Meters to feet

Polar to rectangular
Rectangular to polar

Zenith to horizontal

Using menus

Most of the commands in this program are organized in menus. They are grouped appropriately by the subject they refer to. Some menu commands are followed by an ellipsis (...); it means that choosing the command invokes a dialog box. Other commands are followed by an arrow; it means that choosing the command leads to another menu. The commands that are not followed by any of the above mentioned symbols begin their action immediately.

There are several ways to choose menu commands. If you are using a mouse, first click the desired menu title on the menu bar to display the menu, then click the desired command. If you are using the keyboard, follow these steps. Press the F10 key; this activates the menu bar. Use the arrow keys to move to the desired menu title. Press the Enter key; this displays the chosen menu. Alternatively, you can just press the highlighted letter of the menu title. Use the arrow keys again to move to the command you would like to choose and then press the Enter key. By using a keyboard shortcut, all of the menus can be displayed by pressing and holding the Alt key, and pressing the highlighted letter of the menu title. When a menu opens, the desired command can be chosen by pressing its highlighted letter. If, during walking through the menus you change your mind, you can always press the Esc key to back up.

Registration

This is free software. Registration not required. Enjoy!