

Working with Connections

Springs and *struts* are devices used to position dialog items within a dialog and to define the sizing behavior of the dialog items. These devices, referred to as **connections**, can be displayed and edited in both the Dialog Panel and the Connection Window. A **spring solution** is the series of connections used to position or size a dialog item. Figure 4-9 shows a spring solution for a dialog item placed in the Dialog Panel.

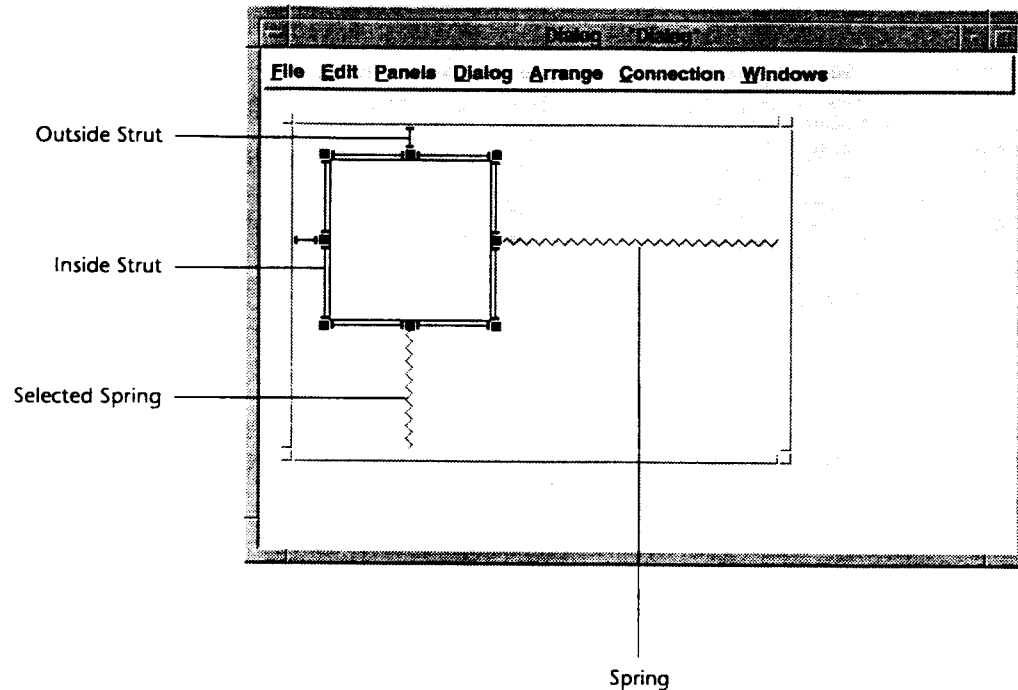


Figure 4-9. Dialog Panel showing connections

Dialog items have inside and outside connections. **Inside connections** are contained within a dialog item, connecting opposite sides of the item. The inside connections of a dialog item determine the size of an item. **Outside connections** link a dialog item to the border of the dialog window or to another dialog item. The outside connections determine the relative positions of dialog items in a dialog, including the positions of the items if the dialog is resized.

Springs and struts function much as their names imply. A spring stretches to fill the available space; a strut has a specific length. For example, consider the spring solution in Figure 4-9. The outside connection on the left of the dialog item is a strut; the outside connection on the right is a spring. With this spring solution, the dialog item is always positioned a specific distance from the left border of the dialog, even if the dialog is resized. However, if both of these outside connections were springs, as in Figure 4-10, the dialog item would always be centered between the left and right borders of the dialog. Now if the dialog were resized, the dialog item would remain centered, left and right, in the dialog.

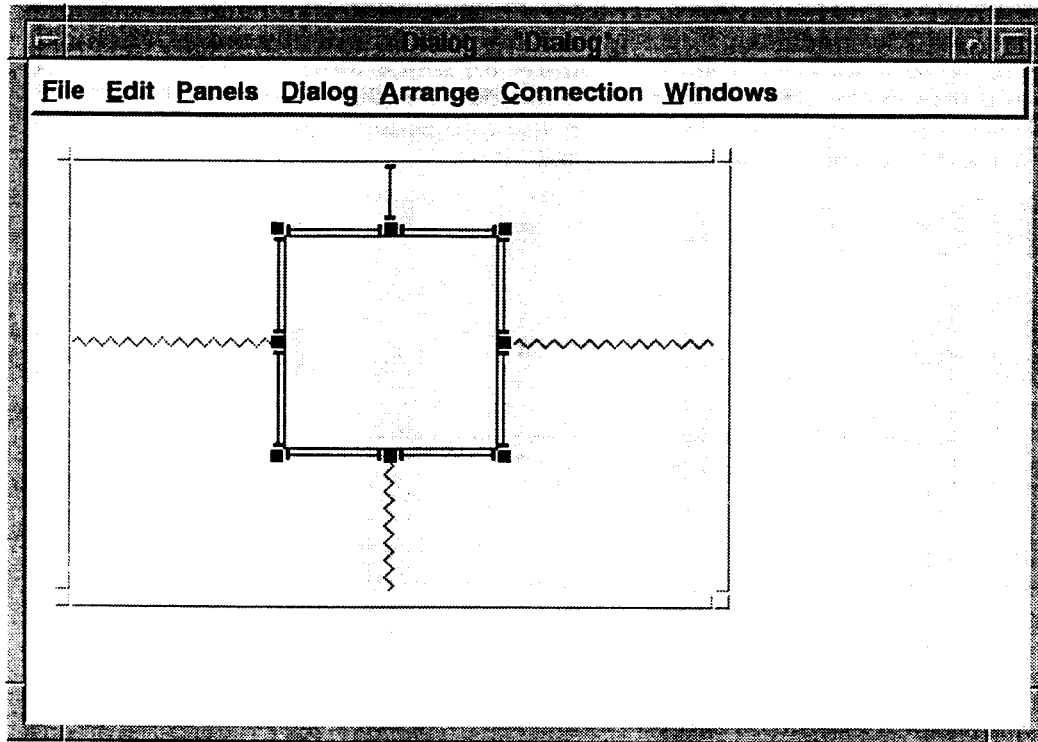


Figure 4-10. Dialog Panel showing edited connections

A **combination spring/strut** connection is used to set the minimum length of a spring. This is useful when you want an item to be a minimum distance from another item or from the border of the dialog.

The inside connections of a dialog item can be used to make an item natural-sized. A **natural-sized** item adjusts its size according to its contents. For example, the inside connections of a button dialog item can be defined as natural-sized struts. The size of the button is then determined by the size of its contents (the title displayed on the button).

A **chain** is a series of connections between dialog items. A chain is in one direction, horizontal or vertical, and must always have at least one spring connection. If a chain does not have at least one spring connection, the spring solution cannot stretch to fit a resized dialog.

Connections have a direction determined by the connection's *source* and *destination*. The source for outside connections is always a dialog item; the destination is another dialog item or the border of a dialog. The source for inside connections is one edge of a dialog item; the destination is the opposite edge of the item. The direction of a connection helps determine the behavior of the connection. Figure 4-11 illustrates the source, destination, and direction of all connections.

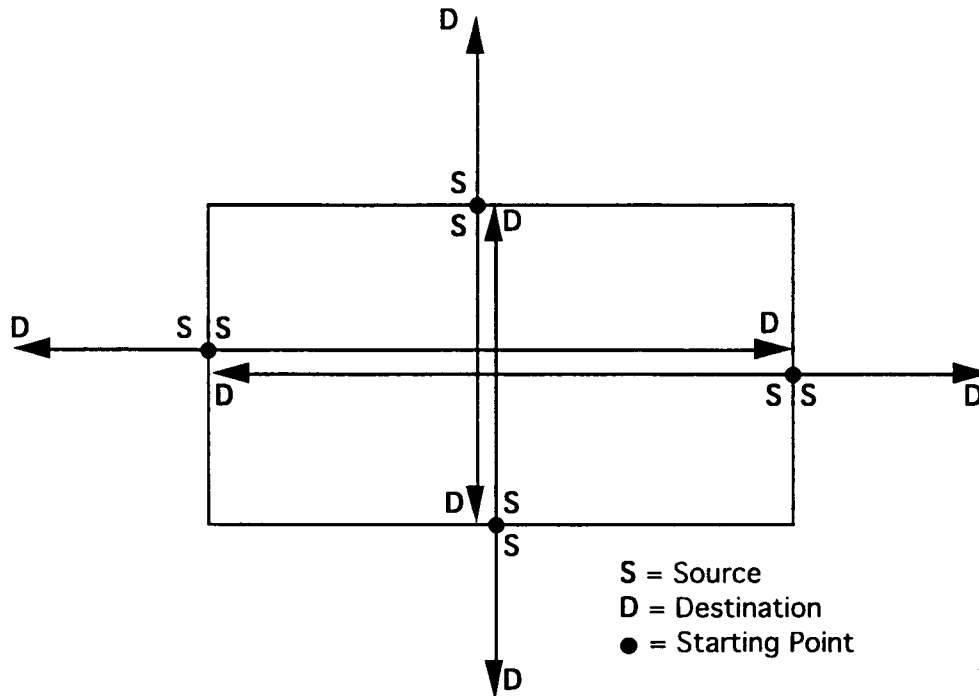


Figure 4-11. Source, destination, and direction of connections

When an item is initially placed in a dialog, with few exceptions, the outside connections on the top and left sides of the item are struts. The outside connections on the bottom and right sides of the item are springs. The inside connections are often natural-sized struts, but may vary, depending on the dialog item. Exceptions to these defaults are discussed in Chapter 5, "Dialog Items."

To display connections for a dialog item (or items):

1. Select one or more dialog items in the Dialog Panel.
 2. Select **Connection** from the Windows Menu in the Dialog Panel.
Connections are displayed for the selected item(s) in the Dialog Panel, and the Connection Window appears.
- or
2. Select **Show** from the Connection Menu in the Dialog Panel.
Connections are displayed for the selected item(s) in the Dialog Panel, but the Connection Window does not appear.