

## **Linux Lessons: Symbolic Links**

### **“Linux Desktop Shortcuts”**

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On the Windows desktop many applications are accessed from a shortcut icon. These icons are simply pointers that allow you to launch programs from the desktop, but they are not the actual programs themselves.

Linux has a similar "shortcut" method. We call them links. They are similar to the Windows shortcut, but they also have some important differences.

### **How to Create a Linux Symbolic Link**

Links in Linux can be created either from the desktop by dragging an icon to the desktop, by right-clicking the desktop and choosing "Create New/Link to Application..." or from the command line.

#### **Dragging to the Desktop**

First we need to discuss the Desktop Folder in Fedora. KDE versions 4.1+ have all used the Desktop Folder for placing your links on the desktop. This was primarily because many Linux users prefer not to have their desktop cluttered with icons. KDE's answer was the Desktop Folder—a specialized place on the desktop where you can hold all your icons.

You can revert back to the old way, with your icons lined up on the desktop outside the Desktop Folder by changing to Desktop Folder view in the Desktop Properties.

Whether you are using the old KDE folder view or the new Desktop folder, you can drag and drop any program icon to these areas and this will create a link.

#### **Create New Link**

You can also create a link to a program by right-clicking the Desktop Folder (or in Folder view right click anywhere on the desktop) and select Create New, then Link to Application. You will be presented with a dialog box that will allow you to browse to the program you wish to link to. Once you have selected the program, click OK and a link will then be created.

#### **Command Line**

The last method is the command line. Actually, several helps and tips I have found for setting up programs and utilities on Linux where a symbolic link is required include the instructions for creating these links on a command line. So using this method can be very helpful.

There are actually two types of links:

- Symbolic Links: Can be created anywhere on the system and can also link to directories.
- Hard Links: Refer to the specific location of physical data. Cannot be linked to directories.

Hard links are really not all that useful. You will want to create symbolic links most of the time.

To create a symbolic link, use the following syntax:

```
ln [options] sourcename [destname] sourcenames destdirectory
```

There are several [options] referred to here and you can certainly [look up](#) the command if you want more information. I will be using the -s option to create the symbolic link.

For example, if I wanted to create a link to a file to the desktop called "pete\_file1" located in my home directory, it would look something like:

```
ln -s /home/pete/pete_file1 /home/pete/Desktop/
```

Now when I ask for a listing and include all attributes (ls -la) for both my home directory and my Desktop directory, you can see how the symbolic link is noted:

The important thing to notice here is on the link in the Desktop location, you will see a -> (arrow) indication to where pete\_file1 is actually linking; in this case it's linking to /home/pete/pete\_file1, which is exactly what we want. So now the Desktop will have an icon that is a symbolic link to my file.

If you would like more information about symbolic links or want to post more questions, feel free and I will try to answer them.