Software User Manual

*Setup and Instructions*

PCBuilder

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SDEV 140

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**SOFTWARE DESCRIPTION**

PCBuilder is a PC build calculator that is used to calculate the cost of building your own PC.

**Description**

This software allows you to create a list of components used to build a PC. It will then display the total cost of the build. You may also compare two separate builds side by side.

**Benefits and Value**

This software provides an essential first step in building your own PC. Knowing what components you will need and how much these components will cost is an important part of the process. Additionally, it’s helpful to know what options you may have and using this software to compare different builds will help you feel more confident in choosing the right build.

**Platform Requirements**

Installation of Python:

* Modern Operating System:
  + Windows 7 or newer.
  + Mac OS X 10.11 or higher, 64-bit
  + Linux: RHEL 6/7, 64-bit
* X86 64-bit CPU (Intel/AMD)
* 4 GB RAM
* 5 GB free disk space

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**FEATURES INCLUDED IN THE SOFTWARE**

The PCBuilder software is comprised of the following:

* Window 1: used to create a list of components and their respective cost, which will then be added to display the total cost.
* Window 2: used to compare two builds side by side and display the total cost difference between them.

This software is designed support the user in building a PC by calculating costs and comparing builds. It can be used by anyone interested in building their own PC.

Graphical user interface

Description automatically generated with low confidence

**Figure 1-1**

**Window 1 Layout and Design**

* Fifteen rows and four columns.
* Each column represents one of the following: Component Type, Description, Quantity, and Cost.
* Compare button that opens Window 2 when clicked. Additionally, any content that has been added in Window 1 will be transferred to Window 2.
* Total cost output where the total cost will be displayed.
* Calculate button that calculates the total and displays it in the total cost output.
* Exit button that closes the window.

Graphical user interface

Description automatically generated

**Figure 1-2**

**Window 2 Layout and Design**

* Two frames containing fifteen rows and four columns
* Each frame represents a different build
* As with Window 1, each column represents one of the following: Component Type, Description, Quantity, and Cost.
* Each frame also contains:
  + Total cost output where the total cost will be displayed.
  + Calculate button that calculates the total and displays it in the total cost output.
* Cost difference output that will display the difference in total cost between the two builds once the total for each build has been calculated.
* Exit button that closes the window.

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**INSTALLING THE SOFTWARE**

To run the PCBuilder software you must first have Python installed. Follow this link to download Python and learn how to install it:

<https://www.python.org/downloads/>

Once you have Python installed, simply extract the PCBuilder.zip folder to the directory of your choice. Inside the PCBuilder folder, double click the file PCBuilder.pyw to run it. Do not remove PCBuilder.pyw or any other files from the folder. PCBuilder.pyw must be in the same folder as it’s resources to access them.

Graphical user interface, text, application, email

Description automatically generated

**Figure 2-1**

**Extracting PCBuilder.zip**

**A screenshot of a computer

Description automatically generated with medium confidence**

**Figure 2-2**

**Extracted Folder Contents**

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**CREATING AND COMPARING BUILDS**

**Creating a Build**

***Step 1 – Choose your component***

To begin creating builds start by selecting the first component by clicking the drop-down box labeled None. This will display a list of thirteen different components to choose from.

***Step 2 – Describe your component***

Once you have your component selected, write a description for the component. For example, if you chose CPU as your component then the description may be something like: AMD Ryzen 5 5600X.

***Step 3 – Enter the quantity***

Now that you have your component picked out, indicate how many of that component you will need by entering the quantity. The quantity field will only accept numbers as input.

***Step 4 – Enter the cost***

With your quantity in place, you must now enter the cost of the component. Like the quantity field, cost will also only accept numbers. Additionally, It will accept exactly one decimal point to denote dollars and cents as such: $9.99

***Step 5 – Calculate the total***

Finally, the last step is to calculate the total. Once you have all your components selected as well as the quantity of each and their costs, click the calculate button. This will display the total cost of the build in the total cost output at the bottom of the window.

**Comparing a Build**

***Step 1 – Opening the compare window***

To compare builds you first need to open the compare window by clicking the compare button. This will open a new window that displays two build lists side by side. Additionally, any work you have done on window 1 will be transferred to the compare window.

***Step 2 – Enter your builds***

Just like with window 1, you will enter in the component type, description, quantity, and cost for each build. All the same factors apply to the compare window as they did in window 1.

***Step 3 – Calculate totals***

Once you have all the details for each build entered in, click the calculate button for each build to display their respective total costs. After both builds have been calculated, the total cost difference between the two builds will be displayed at the bottom.

***Step 4 – Wrapping up***

If you are finished creating and comparing builds, then it’s time to close the program. Don’t forget to take screenshots and record anything information you would like to save for later. To close the program, simply click the exit button. Clicking the exit button in the compare window will only close the compare window but clicking the exit button in the first window will close both windows.