Graphical User Interface (GUI) vs. Command-Line Interface (CLI)

GUIs and CLIs are the two main approaches to interacting with computer systems. GUIs are characterized by visual elements, such as graphics and icons, while CLIs rely on text-based commands.

GUIs are known for their user-friendliness. Because of this, they are preferred by novice users instead of CLIs. GUIs provide a visual representation of the system so that users can easily navigate and perform tasks on an electronic device. An example of a device that utilizes a GUI is an iPhone or a PC. These devices have icons on their main interfaces that represent applications that users can click on and gain access to. For example, If a user wanted to access a desktop browser on their PC, all they would have to do is click on the browser icon and they would be able to use the browser. PCs even include menus and taskbars with icons on them to further increase the accessibility of their interfaces.

CLIs are known for their efficiency for more experienced users. CLIs utilize a text-based interface to perform actions on an electronic device. One example of a text-based interface is the command prompt on a PC. By clicking the command key on a keyboard, users can type text commands to interact with their device. Although CLIs have a much steeper learning curve than GUIs, they are much more efficient in terms of performing more complicated tasks. Examples of these tasks include file manipulation and text processing. If a user has a good understanding of a programming language, such as Java or HTML, CLIs are going to be much more valuable to them than a GUI if they are looking to perform a complicated task.

GUIs and CLIs are both valuable ways of interacting with computer systems. GUIs are more accessible to a wider audience and are thus more commonly used for basic navigation around computer systems. CLIs are more valuable for more experienced users looking to perform a wider range of tasks on an electronic device.