GUI (graphical user interface) vs. CLI (command-line interface)

Graphical User Interfaces (GUIs) and Command-Line interfaces (CLIs) are the two main approaches to interacting with computer systems. GUIs are characterized by visual elements, like graphics and icons, whereas CLIs typically rely on text-based commands.

GUIs are known for their user-friendliness. Because of this, they are preferred by novice users over CLIs. GUIs provide a visual representation of the system so that users can navigate and perform tasks on an electronic device without a lot of prior training or knowledge. Popular examples of electronics that have GUI interfaces are iPhones and PCs. Both of these devices use icons to help the user navigate through the main interfaces. PCs even include menus and touch bars with icons on them to further increase the ease of use of their interfaces.

CLIs are known for their efficiency and effectiveness for more experienced users.

Although CLIs have a much steeper learning curve than GUIs, they are much more efficient in terms of performing more complicated tasks on an electronic device. 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 the user if they are looking to perform a complicated task.

GUIs and CLIs are both valuable ways of interacting with computer systems. Whereas GUIs are more valuable for basic navigation around computer systems, CLIs are more valuable for more experienced users looking to perform complicated tasks.