Visualization Tools

A slide presentation with histograms and other images is usually much more appreciated and effective than a text presentation on the same subject. Graphics and animations, when appropriately rendered, can decrease the time required for knowledge workers to grasp complex processes and allow nonexperts to verify the accuracy of relationships that would have been unwieldy to describe with tables of data.

Simulation-based animations are especially good at imparting the dynamic relationship between variables. Examples of visualization tools range from three-dimensional graphic packages to simple pie chart and histogram output from spreadsheets and other traditional office programs.

Interface Tools

Getting information out of a database is as important as acquiring it. The point of human-computer communication—the interface—defines the quality and efficiency of the interchange. The better the interface, the easier it is for knowledge workers and managers to interact with computer-based tools. In addition to a mouse, keyboard, speakers, and video display, a variety of specialized software and hardware can make the user interface more effective.

For example, text-to-speech (TTS) engines are useful in creating speech from text displayed on the screen. TTS is commonly used in conjunction with avatars, or graphical representations of some part of the computer, information in the data warehouse, or another knowledge worker. The Microsoft Office "Paper Clip" is one example of how an avatar can be used to introduce novice users to word processing with a computer program. A more warmly accepted avatar is Ananova, the first virtual newscaster (*www.ananova.com*).