

Chapter 2—Visuals

Visuals, or visual elements, in a technical document contribute information nonverbally, in a way that just text cannot. If used effectively and selected appropriately, visuals will greatly enhance the comprehension of the document. If used ineffectively or selected inappropriately, they may only be a distraction to the reader. Another term that is used to convey the same concept is **infographics**, which can be defined as the *visual display of information*.

Visuals . . .
encompasses all forms of graphics or images included in a technical document.
Infographics . . .
are the visual display of information.

Visuals or infographics may depend on text to provide *context*; that is, associated text clarifies the purpose of the visual and integrates it into the document. The caption below a visual often serves this purpose, as in this example:



Figure 2.1—Nationwide Real Estate Sales by Region in 2005

Some examples of types of infographics, or displaying some statistical or other text-based information visually, are:

Infographics (possibilities, examples)

- anatomical charts
- area charts
- bar charts
- calendars
- column charts
- cut-aways
- directions
- evolution charts
- football plays
- game directions
- gantt charts
- histograms
- historical charts
- instructions
- line charts
- logarithmic spirals
- maps
- matrices
- parts assembly
- pie charts
- procedures
- process diagrams
- projections
- quadrants
- radar charts
- scattergrams
- schematics
- stock reports
- surface charts
- systems diagrams
- tables
- technical illustrations
- tidal charts
- timelines
- topographic maps
- value chains

From the foregoing, it can be seen that visuals can depict:

- **How Things Look:** *Drawings, Photographs, Maps, Screenshots*
- **Numbers and Quantities:** *Graphs, Tables*
- **Relationships:** *Flowcharts, Schematics, Organizational Charts*

How Things Look

¹Drawings can . . .

- Depict real objects difficult to photograph
- Depict imaginary objects
- Highlight only parts readers need to see
- Show internal parts of equipment in cutaway views
- Show how equipment parts fit together in exploded views

Photographs can . . .

- Show actual physical images of subjects
- Record an event in process
- Record the development of phenomena over time
- Record the as-found condition of a situation for an investigation

Maps can . . .

- Show specific geographic features of an area
- Show distance, routes or locations of sites
- Show the geographic distribution of information



Figure 2.2—Screenshot example to illustrate a task

Screenshots are used often in software documentation, to provide a visual reference to the task or process. They are an actual graphic image of what the computer screen would look like during that task. This graphic combines text and a visual screenshot to explain a task.

¹ Gerald J. Alred, Charles T. Brusaw and Walter E. Oliu, *Handbook of Technical Writing*, pg 560, Visuals (Eighth Edition, St. Martins Press, 2006)



The combination of a technical drawing and a photograph is particularly useful in this Network Design Manual, where the Technical Illustrator (the author) superimposed depictions of network cables over a photograph.

Figure 2.3—Photograph and Drawings in a Network Design Manual

Numbers and Quantities

Graphs and tables visually organize data in a way that makes it easier to understand. A set of statistics in text, called a dataset, is difficult for most people to accurately absorb, and so when presenting statistical data, graphs are especially useful for comprehension.

However, graphs can also be used to distort data, either consciously or inadvertently. It is useful for the writer to have a basic understanding of statistical theory if they will be interpreting statistics and creating graphs as visuals.

A classic example of statistical graph distortion is the comparison of murder rates in two cities over a period of time. If only numbers and not percentages are used, then the increase of population is not taken into account and the graph visual will give a false impression to the reader. An excellent primer in these concepts can be found at:

“Statistics Help for Journalists”
 Accessed October 28, 2007, (www.robertniles.com/stats/)

Bar graphs can:

- Depict data in vertical bars and horizontal columns for comparison.
- Show quantities that make up a whole.
- Visually represent data shown in tables.

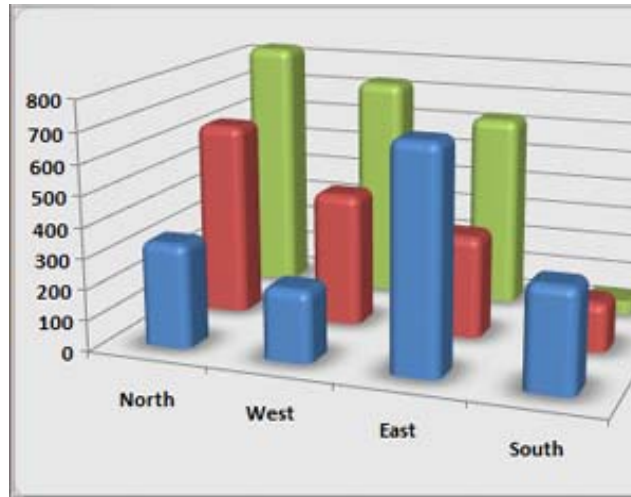


Figure 2.4—A bar graph example

A table, on the other hand, organizes text data in a visual way, but leaves it as text.

²Tables can:

- Organize information systematically in rows and columns.
- Present large numerical quantities concisely.
- Facilitate item-to-item comparisons.
- Clarify trends and other graphical information with precise data.

| ALL HTML TAGS | | | | | | |
|---------------|-------------------------|-------------------------|-------------------------|----------------------|------------------------|--|
| NAME | W3C | HTML X.X | NS | MSIE | DESCRIPTION | |
| A | HTML4.0 | HTML3.2 | HTML2.0 | NS3+ | MSIE3+ | anchor |
| ABBR | HTML4.0 | | | | | abbreviated form (e.g., WWW, HTTP, etc.) |
| ACRONYM | HTML4.0 | | | | | |
| ADDRESS | HTML4.0 | HTML3.2 | HTML2.0 | NS3+ | MSIE3+ | information on author |
| APPLET | HTML4.0 | HTML3.2 | | NS3+ | MSIE3+ | Java applet |
| AREA | HTML4.0 | HTML3.2 | | NS3+ | MSIE3+ | client-side image map area |
| B | HTML4.0 | HTML3.2 | HTML2.0 | NS3+ | MSIE3+ | bold text style |
| BASE | HTML4.0 | HTML3.2 | HTML2.0 | NS3+ | MSIE3+ | document base URI |
| BASEFONT | HTML4.0 | HTML3.2 | | NS3+ | MSIE3+ | base font for the page |
| BDO | HTML4.0 | | | | MSIE5+ | l18N BiDi over-ride |
| BGSOUND | | | | | MSIE3+ | background sound |

Figure 2.5—A table example

² Gerald J. Alred, Charles T. Brusaw and Walter E. Oliu, Handbook of Technical Writing, pg 560, Visuals (Eighth Edition, St. Martins Press, 2006)

Relationships

Flowcharts, schematic diagrams, and organizational charts depict relationships in a system or a hierarchy, or steps in a process. In the example here, a schematic diagram of a network design:

- Shows how the parts of this design interact.
- Shows how the components are interrelated.
- Uses symbolic representations of the system components.

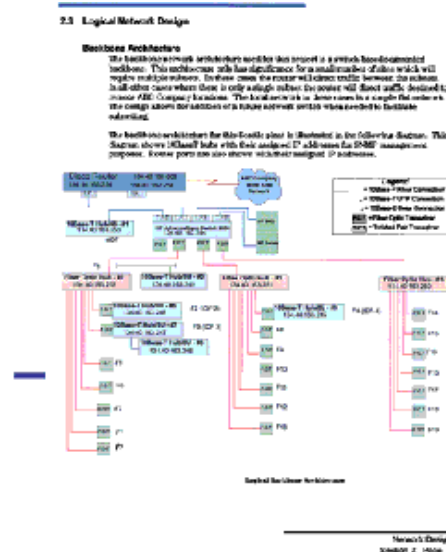


Figure 2.6—Schematic Diagram

Global Graphics

As symbols, images and colors all have cultural associations, being aware of the differences has become increasingly important. As business becomes more global, technical documents and their graphics must also communicate to a wider audience. Being aware of global graphics challenges the writer to think beyond their own experiences and cultural assumptions.

Symbols, images and colors all depend on context, and there is a large cultural component in context. The depiction of people in visuals seems to be especially problematic. How to portray people of both sexes in a way that doesn't offend any cultural sensibilities has been one of the most important issues to resolve for a global audience.



Non-realistic portrayals are a common and effective answer to this global graphics dilemma, such as the use of stick figures, line figures, and silhouettes. This solves many problems at once, and they have become universally recognizable to people of many languages and cultures.

Figure 2.10 has also become known as a “global graphic” in that it no longer needs translation anywhere in the world. The red circle with the “NO” diagonal across it can be and is used for many other purposes, in any circumstances where something is prohibited.

Some image meanings that a writer who is only familiar with Christianity might assume are true are not necessarily valid for other religions, such as the symbol denoting first aid or a medical facility.



A **red cross** is used to denote first aid or a hospital in the United States. This is presumably because of the European colonial heritage of the U.S. being primarily Christian.

However, in predominantly Muslim countries, a cross is associated with Christianity, but not necessarily first aid. In those areas, a **green crescent** denotes a hospital or medical assistance of some kind.



These issues of “Global Graphics” have relevance to the technical writer even more now than in the past. If needed, a reference book on the subject is a good investment. This author recommends ³*Global Graphics: Symbols, Designing with Symbols for an International Market*.

³ Anistatia R. Miller, Jared M. Brown, Cheryl Dangel Cullen, and Cheryl Dangel Cullen, *Global Graphics: Symbols, Designing with Symbols for an International Market*, (Rockport Publishers, 2000)