
The Professional Geographer

Graphics Guidelines

All graphics (maps, graphs, and photographs) should be submitted digitally in either EPS (Encapsulated Postscript) or TIFF (Tagged Image File Format). Graphics can be exported and saved in these formats with applications such as Adobe Illustrator or CorelDraw. When exporting to EPS or TIFF, all fonts *must* be embedded. Graphic formats such as GIF, JPEG, PDF, and images produced in PowerPoint or imported into a Word document are *not* acceptable for high-quality printing. All raster images (TIFF) must be saved with a resolution of 600 dpi.

Layout

A full-page graphic must not exceed 5.9 inches (wide) by 8.8 inches (long), or 2.8 inches (wide) by 8.8 inches (long) for a single column, *including* space for the figure caption which will be typeset by the printer. Intermediate sizes are acceptable. Please plan for possible reductions of type and symbols.

Figures that contain multiple component parts must be assembled into a single figure by the author. Normal order will utilize a full page width with A – B placed above C – D, etc. The author should insert the letters (A), (B), etc. slightly above and aligned with the left edge of the component.

Maps

Basic map design principles can be found in the following textbooks:

- Dent, Borden D., Jeffrey S. Torguson, and Thomas W. Hodler. 2009. *Cartography—Thematic Map Design*, Sixth Edition. WCB/McGraw-Hill. ISBN 0-07-294382-5
- Krygier, J., and D. Wood 2016. *Making Maps: A Visual Guide to Map Design for GIS*. Guilford. ISBN 9781462509980
- Slocum, Terry A., Robert B. McMaster, Fritz C. Kessler, and Hugh H. Howard. 2009. *Thematic Cartography and Visualization*, Third Edition. Prentice Hall. ISBN 0-32-29834-1

Lettering

1. All type should be from common type families (examples: Helvetica, Arial, Times New Roman, etc.). If a unique type font is critical to the theme of the map, such as helping to engender the feeling of an historical era, then a copy of the postscript font should be included with the final figure files, and its presence noted.
2. Type must be sufficiently large to be easily read at final print size; no type smaller than 6 point should be used.
3. Appropriate cartographic lettering placement should be observed.
4. Type placed on screen tints or area patterns must be clearly readable. White type can be used over dark screen tints, and area patterns can be lightened to prevent interference with type.
5. Generally, map titles will be incorporated into the figure caption and will appear outside and below the figure. Figure captions should **NOT** be a part of the graphic. All captions will be typeset, and should be submitted on a separate page. Figure numbers should be a part of the figure's file name (see below).
6. The International System of Units (metric) should be used; other units may be noted in parentheses.

Screen Tints and Area Patterns

1. Screen tints and area pattern fills should reflect the importance of graphic elements through visual hierarchy (i.e., more important elements appear more prominently than less important elements).
2. To ensure distinction between screen tints (particularly on choropleth maps), the following percentages are suggested:
 - 2 tints: 30%, 50%
 - 3 tints: 10%, 25%, 50%
 - 4 tints: 10%, 20%, 50%, 80%
 - 5 tints: 10%, 20%, 40%, 60%, 100%
 - 6 tints: 10%, 15%, 25%, 40%, 60%, 100%Typically, graphics should not have more than 6 tints.
3. All graphic files should be submitted at a resolution of at least 600 dpi.
4. Authors may print three color figures at no charge. Authors wishing to include additional print color figures will be expected to pay \$200 for each additional figure.
5. Color images need to be submitted in CMYK format. Advice for using color available at <http://colorbrewer2.org>.

Final submission of graphics files

Note: All graphics are referred to as figures. For example, do not label something as Map1; it should be labeled as Figure1.

1. The figures should be labeled using the following naming convention: corresponding author's name, the figure numbers, and extension for the file type. For example: figures for an article submitted by Dr. Jan Smith will be:

- SmithFigure1.eps
- SmithFigure2.eps
- SmithFigure3.tif

The figure number must correspond to the figure sequence referenced within the manuscript.

2. To evaluate and test the quality of your figures prior to submission, print a copy of each figure using a laser printer at a print resolution of at least 600 dpi. After printing the figure, measure the width of the figure and verify that it is no wider than the journal's page width and inspect the text and image for quality and readability. Increase text size where appropriate as it is important for the understanding of your graphics.
3. List of figure captions and sources typed double-spaced.
4. Final graphics files should be uploaded via the ScholarOne portal, along with the final text files.

Please contact the Cartography Editor, Dr. Stephen Hanna (mapedit.aag@gmail.com), with questions about file formats, production alternatives, and design problems.