

Preparing and Submitting Electronic Files for the IEEE 2000 Mobile Ad Hoc Networking and Computing Conference (MobiHOC)

Please read the detailed instructions that follow before you start, taking particular note of preferred fonts, formats, and delivery options. The quality of the finished product is largely dependent upon receiving your help at this stage of the publication process.

Producing Your Paper

Acceptable Formats

Papers can be submitted in either PostScript (PS) or Portable Document Format (PDF) (see *Generating PostScript and PDF Files*).

Using LaTeX

Documents converted from the TeX typesetting language into PostScript or PDF files usually contain fixed-resolution bitmap fonts that do not print or display well on a variety of printer and computer screens.

Although Adobe Acrobat Distiller will convert a PostScript language file with bitmapped fonts (level 3) into PDF, these fonts display slowly and do not render well on screen in the resulting PDF file. But, **if you use Type 1 versions of the fonts you will get a compact file format that delivers the optimal font quality when used with any display screen, zoom mode, or printer resolution.**

Using Type 1 fonts with DVIPS

The default behavior of Rokicki's DVIPS is to embed Type 3 bitmapped fonts.

You need access to the Type 1 versions of the fonts you use in your documents in order to embed the font information (see *Fonts*). Type 1 versions of the Computer Modern fonts are available in the BaKoMa collection and from commercial type vendors.

Before distributing files with embedded fonts, consult the license agreement for your font package. Some typeface vendors do not allow you to embed complete fonts into a PDF or Post-Script language file for public distribution. Contact the type vendor for more information. You may embed all fonts included in the Adobe Type library.

When using LaTeX, only embedded fonts should be used to ensure a decent conversion to PDF. Use of Times fonts is highly recommended for consistency and readability both on screen and in print.

With LaTeX2e use the command

```
\usepackage{times}
```

and with LaTeX 2.09 use the command

```
\documentstyle[times]{...}
```

You will need the following packages: times.sty, rawfonts.sty.

For more information, refer to this URL:

<http://www.adobe.com/support/techdocs/543e.htm>

If you are unable to submit your paper in any of the electronic formats, or if we encounter problems converting your electronic submission, your paper will be scanned and converted to PDF for inclusion on the CD. Although a scanned paper looks identical to the original when printed, it is slower and more difficult to view on screen. **If you do plan to deliver your paper by hard copy avoid typefaces smaller than 11 points.**

Generating PostScript and PDF Files

The submission of your document as a PDF file is the preferred method. PDF files are more likely than others to preserve your intended layout.

Almost all applications/systems can produce a suitable PostScript file, which can then be converted to PDF. PS files may be generated in a wide variety of ways. In all cases, the quality of your PostScript file will have a direct impact on the quality of the converted file. A high quality PS file is one that reliably produces pages with the desired look, as efficiently as possible.

Please review the following suggestions for producing your PostScript file. This will ensure it is usable and presented in the manner you wish.

- **Use only base fonts (see *Fonts*). If you use ANY OTHER font(s), you must embed those fonts in the PostScript file. If using a Windows system, select the "Use Printer Fonts for all TrueType Fonts" option in the "Advanced Options" dialog box for the PostScript printer driver.**
- **Embed all images and figures.**
- Make sure that your submitted paper prints correctly to a PostScript printer. Files that cannot be printed usually cannot be converted. Select the following printer for PostScript output:

Windows 3.1, 3.11	PostScript Printer driver
Windows '95	AdobePS 4.1 (available from www.adobe.com)
	OR any Linotronic printer driver
Windows NT	any Linotronic printer driver
Mac OS	LaserWriter 8.x driver
OS/2	any Apple LaserWriter w/ PostScript driver

- Always use the latest version of your PostScript driver and select PostScript Level 2 if available.
- If you design your document using color, select a color PostScript printer to create your PostScript file. Note that many applications create color data only when printing to a color printer and will create a grayscale document unless a color PostScript printer is selected.
- Do not use custom halftones (photographs) and pattern fills. Instead use solid-color or gray scale fills to produce a more readable document on-screen that will also load and print significantly faster.
- Do not select "Smooth Graphics". This option often produces extremely large files that will take a long time to display and print. The Smooth Graphics option is usually found in the Page Setup Dialog box in Macintosh applications and some Windows applications.

Converting Word Files

You will need either the PDFWriter or any PostScript printer driver installed to create a PDF from a Word document.

To generate a PDF file from a Word document

Generating a PDF directly from Word requires the PDFWriter driver. All default settings for this driver should be kept **but the following if you use ANY fonts OTHER THAN the base fonts (see *Fonts*)**:

1. Select File | Print
2. Under Printer Name select the Acrobat PDFWriter driver
3. Click Properties button to the right of the Printer Name text box
4. Click Compression
5. Under the Compatibility drop-down list, choose Acrobat 3.0
6. Click OK
7. Click Fonts
8. Check the **Embed All Fonts** option in the upper left corner, or check the **Always Embed List** option and add all fonts used in your paper to the list (you may opt to embed only those fonts that are not base fonts)
9. Deselect any subsetting options (IMPORTANT)
10. Click OK twice, then either click Close to complete the configuration, or OK to create the PDF.

After the properties are set, you may also create a PDF by choosing **File | Create Adobe PDF | Print via PDFWriter**.

If you have used only base fonts (see *Fonts*) you need not embed any fonts. You must, however, change the compatibility setting as instructed above.

To generate a PostScript file from a Word document

If you have a PostScript driver you will need to create the PostScript file first, then convert it to PDF:

1. Select File | Print
2. Under the Printer Name, choose the PostScript printer
3. Check the Print To File checkbox
4. Click OK to output a PostScript file. The extension of this file will be *.prn. This file is recognized as a PostScript file.
5. Go to the [PDF conversion site](#) and follow the simple instructions

Converting LaTeX Files

You will need the program MiKTeX. You can install MiKTeX (basic features) on your PC. It is DOS-based thus works with all versions of Windows.

- Go to <http://www.miktex.de/getting.html> and click the closest server to you.
- Open the zip file and run **setupwiz.exe**. When prompted for "Local TEXMF Tree", respond Yes, *this is where I'll put the IEEE style file*. The wizard will perform the installation automatically.

The only thing left to you is to add the c:\texmf\miktex\bin to your path:

- In Windows NT add set PATH=%PATH%;c:\texmf\miktex\bin to your autoexec.bat
- In Windows 98 do start\run\syesedit and then add c:\texmf\miktex\bin to the path in autoexec.bat

To generate a PDF file from your LaTeX source:

- Copy the IEEE style file to the local texmf tree (if it is c:\localtexmf, you might want to put it in c:\localtexmf\tex\latex\IEEE*.cls)
- Copy all your files (*.tex, *.eps, *.bib to a pc directory, d:\paper for example). If you do not have a local directory, then make sure to put the class file in this directory, too.
- Open a DOS prompt and cd to d:\paper.

To generate PostScript use: latex mypaper, bibtex mypaper, dvips mypaper, etc, in the DOS window.

To generate PDF use one of the following options:

1. Aladdin GSview (try to get at least version 2.6) from <http://www.cs.wisc.edu/~ghost/aladdin/get550.html>
 - Open the PostScript file with Gsview
 - Select File | Print, then select the PDFwrite device and Print to File.
2. Conversion site—Go to <http://www.ps2PDF.com/cgi-bin/ps2pdf> and follow the simple instructions
3. You can generate PDF directly from LaTeX using: PDFlatex mypaper - Note that this requires you to change the LaTeX source if you include *.eps figures

Fonts

The following fonts are considered **base fonts**, and you are encouraged to limit your font selections to this list. These fonts are automatically installed with the viewing software and made available to all papers included on the published CD without having to be included within individual PDF files. **Please note that Times is the preferred font.**

- | | |
|-----------------------|-------------------------|
| • Courier | • Helvetica-BoldOblique |
| • Courier-Bold | • Symbol |
| • Courier-Oblique | • Times |
| • Courier-BoldOblique | • Times-Bold |
| • Helvetica | • Times-Oblique |
| • Helvetica-Bold | • Times-BoldOblique |
| • Helvetica-Oblique | • ZapfDingbats |

Using these fonts will reduce the size of your converted paper as well as speed up the display and printing of your paper for the readers. Additionally using only the specified fonts provides a consistent look across to all material on the published CD.

If you decide to use fonts other than “base fonts” you must submit your paper as a PostScript or PDF file with embedded fonts. The embedded fonts will be preserved during the conversion process.

Including Graphics/Images

All images must be embedded in your document.

The type of graphics you include will affect the quality and size of your paper on the electronic document disc. In general, the use of vector graphics such as those produced by most presentation and drawing packages can be used without concern and is encouraged.

The use of bitmapped images such as those produced when a photograph is scanned require significant storage space and must be used with care. Bitmap graphics store an image as a series of numbers that

represent the color of each dot in the image. Increasing the size, resolution (dots per inch), or number of colors in an image will dramatically increase the size of the image.

If your paper contains many large images they will be down-sampled to reduce their size during the conversion process. However the automated process used will not always produce the best image, and you are encouraged to perform this yourself on an image by image basis.

Suggestions for improving the quality bitmap graphics include:

- In general, bitmapped images should be limited to no more than 256 (8 bit) color/gray scale, 150 dots per inch, and should be kept as small as possible.
- Reduce the number of display colors before making screen shots. The majority of computer applications use less than 16 colors for their menus, dialogs etc.
- Select higher resolutions only for images that a reader will magnify. Image resolution of bitmapped images does not increase when readers zoom in on an image.

Delivering Your Submission

Compressing Your Submission

Submitting your material is quicker and easier if all of the files are collected into a single archive using one of the following formats:

- Pkzip (.zip)
- Tar (.tar)
- StuffIt (.sit)
- GNU Zip (.gz)
- GNU Zip Tar (.tgz)
- Compress (.z)
- Compress Tar (.taz)
- LHA (.lhz)
- ARJ (.arj)

Naming Convention

The name of your file should be your paper number followed by the appropriate extension. For example, if your paper is a PDF whose ID is 123, you would submit your file as **123.pdf**. If you choose to compress your submission, name the compression file the same name, i.e. **123.zip**, etc.

Updated versions of your electronic manuscript should be named in the following way: using the original filename, add a letter of the alphabet to the end – the "highest" letter representing the latest version. For example, if your original filename was 123.pdf the updated file would be 123a.pdf.

Submitting Your Electronic Paper

Send your manuscript to the MobiHOC FTP site (see below for detailed instructions) by **June 2**. If you are unable to send your files via FTP, you may send a 3½-inch or Zip disk formatted for Macintosh or PC with your camera-ready copy and your signed copyright form.

Submitting Your Camera-Ready Copies

You must send a signed copyright form (<http://www.ieee.org/about/documentation/copyright/cfrmlink.htm>) and camera-ready copy of your paper to the following address by **June 2**:

Elizabeth Aubrey
MobiHOC c/o IEEE Publishing
445 Hoes Lane
Piscataway, NJ 08854-4150 USA
e.aubrey@ieee.org

Submitting Your Paper to the FTP Site

When transferring files to the FTP site, if you have a choice between ASCII and binary modes, use binary. Although ASCII mode works well most of the time, binary mode incurs fewer problems.

What you need to FTP your file(s):

- 1) A computer with Internet access and an Internet browser. Netscape is available free at www.netscape.com. Internet Explorer is available free at www.microsoft.com.
- 2) FTP software. There are many FTP software programs available for the PC and MAC free at www.shareware.com. Just search on "FTP". Netscape or MS Internet Explorer can also be used. (MS Internet Explorer requires an ftp plug-in provided on the Microsoft website.)

Uploading your file(s) is a simple process. You may either

- Upload to your conference's FTP directory via your Internet browser:
 - a) Launch your browser
 - b) In the Address/Location field, type **ftp://ftp.ieee.org/uploads/pubconf/MobiHOC**
 - c) Drag and drop your file(s) onto the browser window

or

- Upload to your conference's FTP directory via your FTP software:
 - a) Launch your FTP software application
 - b) In the Address field (this is sometimes called Location or Site), type **ftp.ieee.org**
 - c) In the User Name or User ID field, type **anonymous**
 - d) In the Password field, you may type anything
 - e) Click through the folders to the following directory: **/uploads/pubconf/MobiHOC**
 - f) Transfer your file(s) into that directory

After a successful upload, you should see your file in the FTP directory. **Please do not request a confirmation of receipt. You will be contacted in the event of any problems.**

Frequently Asked Questions

Q. How will I know if my electronic manuscript was received?

A. Your file will appear on the IEEE FTP site after uploading. Check that the file size listed on the FTP server is the same as the original file size. If the transferred file size is smaller, then it is likely that the transfer was not complete. In this case, change the filename per the naming instructions and upload the file again.

Q. What if I need to send a new version?

A. Use the same FTP instructions. Rename your file using the original name plus a letter. For example, if the original filename was 234.pdf, the updated version should be named 234a.pdf. You will not be able to upload a file with the same name as one already on the FTP site.

Q. I have uploaded two different versions of my paper. How do you know which one to use?

A. If the files are named according to the instructions, the file with the "highest" letter should be the current version. File 234d.pdf would be considered the updated version of 234c.pdf. If the second file has a different filename from the earlier version, but the naming convention for updated files was not used, a simple check of the transfer date of each file will identify the latest version.

Q. My system keeps timing out when I try to upload my file. What should I do?

A. You can try two things:

- If your file is large, you may want to compress it before uploading it. (*.zip, *.sit, *.tar, etc.)
- Sometimes your specific Internet route may experience heavy Internet traffic, slowing down your connection and resulting in time-outs and/or painfully slow transmissions. Wait a little while and then try to upload your file again.