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# Making Postscript and PDF International

## Status of this Memo

This memo provides information for the Internet community. It does not specify an Internet standard of any kind. Distribution of this memo is unlimited.

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## Abstract

Certain text formats, for example Postscript (MIME-Type: application/postscript; file extension .ps) and Portable Document Format (MIME-Type: application/pdf; file extension .pdf) specify exactly the page layout of the printed document. The commonly used paper format is different in North America and the rest of the world. North America uses the 'Letter' format, while the rest of the world mostly uses the ISO-standard 'A4' format. This means that documents formatted on one continent may not be easily printable on another continent. This memo gives advice on how to produce documents which are equally well printable with the Letter and the A4 formats. By using the advice in this document, you can put up a document on the Internet, which recipients can print without problem both in and outside North America.

A very short summary of the advice in this document: If you are using U.S. Letter paper format, ensure that both the left and right margins are at least 21 mm (0.8 in). If you are using A4 paper format, ensure that both the top and bottom margins are at least 33 mm (1.3 in).

## Table of Contents

1. Introduction 2
2. Two methods for printing on different paper formats 2
   2.1 Method 1: Use wider margins 2
   2.2 Method 2: Print with reduced size 3
   2.3 Method 3: Buy paper in the A4 size 4
3. Acknowledgements 4
4. Security Considerations 4
5. References 4

6. Author's Address 5
7. Full Copyright Statement 6

## 1. Introduction

Certain text formats, for example Postscript (MIME-Type: application/postscript; file extension .ps) and Portable Document Format (MIME-Type: application/pdf; file extension .pdf) specify exactly the page layout of the printed document. The commonly used paper format is different in North America and the rest of the world. North America uses the 'Letter' format, while the rest of the world uses the 'A4' format.

The North American Letter format is 216 x 279 mm (8.5 x 11 in) while the ISO standardised A4 format is 210 x 297 mm (8.3 x 11.7 in). The Letter format is thus 6 mm (0.2 inches) wider, while the A4 format is 18 mm (0.7 inches) taller.

This means that documents formatted on one continent may not be printable on another continent. It is oboviously desirable that documents on the Internet are printable on all continents. This paper gives advice on how to achieve this.

This memo is not intended for HTML documents, but the advice may be of value also for HTML developers in case they are using fixed-size graphics and fixed WIDTH sizes of objects in HTML documents.

## 2. Three methods for printing on different paper formats

### 2.1 Method 1: Use wider margins

| Paper format you use when converting the document to Postscript or PDF | Paper orien-tation | Suggested change of margins | Suggested minimal margins Left | Right | Top | Bottom |
|---|---|---|---|---|---|---|
| A4 | Portrait (upright, vertical) | Add 18 mm (0.7 inches) to the top of page and bottom of page margins | 20 mm 0.8" | 20 mm 0.8" | 33 mm 1.3" | 33 mm 1.3" |
| A4 | Landscape (lying, horizontal) | Add 18 mm (0.7 inches) to the left and right margins | 33 mm 1.3" | 33 mm 1.3" | 15 mm 0.6" | 15 mm 0.6" |

| | | | | | | |
|---|---|---|---|---|---|---|
| Letter | Portrait (upright, vertical) | Add 6 mm (0.2 inches) to the right margins | 20 mm 0.8" | 26 mm 1.0" | 15 mm 0.6" | 15 mm 0.6" |
| Letter | Landscape (lying, horizontal) | Add 6 mm (0.2 inches) to the top of page and bottom of page margins | 15 mm 0.6" | 15 mm 0.6" | 21 mm 0.8" | 21 mm 0.8" |

The reason why you have to add 18 respectively 6 mm to both the top and the bottom margin is that you do not know what kind of printer the recipient uses, and different printers feed paper in different ways, requiring the margin to be added either at the top or the bottom of the paper. Left and right margins on any paper format should be at least 20 mm wide to accomodate filing with ISO 838 hole punches.

Note: Ensure that also headers, footers, and page numbers are within the suggested minimal margins. Many word processors put headers, footers and page numbers outside the specified text margins.

## 2.2 Method 2: Print with reduced size

This is a method useful for the recipient of a document with the wrong paper size: The recipient sets the printer to print with reduced size. When the sender produces the PDF or Postscript files, the sender should ’print’ with 100 % size, but when the recipient prints the PDF or Postscript files, and if the program for printing PDF or Postscript files allows this, the recipient should print the document with 94% or less of full size. Many programs for printing Postscript files do not allow this. In that case, the recipient can convert a Postscript document to PDF format and then print it with the PDF printing program. This requires, however, that the recipient has the Adobe Acrobat Distiller program, which is not freeware. Recent versions of the freeware ghostscript can also convert to PDF format. The user may also have to specify the paper size as the actual paper size loaded in the printer, not the paper size specified when the document was converted to PDF or Postscript format.

It is also possible to edit the Postscript file, and add a scale command to it, before sending it to the printer.

Method 2 can be more difficult for the recipient, who has to manage these settings himself. However, manufacturers of printing software may in the future make method 2 easier by making this service automatic, perhaps controlled by a ’shrink to fit paper size’ checkbox in the printing window and a ’default shrink to fit paper size’ preference setting.

In general, the authors of this RFC recommend PDF as the prefered formatted document distribution format over Postscript, not only because PDF printing programs typically feature a 'shrink to fit' option to handle different paper sizes elegantly, but also because PDF has built-in per page data compression, PDF files can be displayed without being fully downloaded, PDF is more portable, PDF has a better method of rendering fonts not available in the printer and PDF allows to embed URLs.

### 2.3 Method 3: Buy paper in the A4 size

People in North America who often need to print international documents might choose to buy paper in the A4 size. It is available in the U.S. from many large paper distribution companies, and almost all laser printers support it.

## 3. Acknowledgements

Markus Kuhn has provided many helpful suggestions on this document.

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## 4. Security Considerations

Adherence to the recommendations in this memo will increase the likelihood that a document will be readable, and look the same, to all recipients, and thus reduce the risk of misunderstanding. The recommendation does not in itself introduce any known new security risks. Of course, there might be a risk that reliance on the recommendations in this memo will make certain writers too sure that their documents will look the same.

Postscript (TM) has well known security risks. These are discussed in [MIME].

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