

## Large-Format Map Products for Census 2000 Guide To Map Plotting Devices

<http://www.census.gov/geo/DR/plotter.pdf>

Many of the map products the Census Bureau will produce to support Census 2000 will be available to the public in various electronic file formats. Each map type will be available in one or more file formats depending on the map requirements and specifications. Some predefined map types, such as the County Block Map and the Census Tract Outline Map, will be available in both Hewlett-Packard Graphics Language (HP-GL/2) and Adobe's Portable Document Format (PDF). Other specialized maps, such as thematic wall maps, will be available in PDF and/or PostScript format.

Maps in HP-GL/2 format are provided to facilitate high volume map plotting. Maps provided in PDF format are intended for viewing, navigating, and printing using the current version of Adobe's free software product, Acrobat Reader. On many output devices, maps in PostScript format provide the highest image quality.

The Census Bureau will produce copies of the P.L. 94-171 and other Census 2000 map products in HP-GL/2 format using the device specifications below. If maps are plotted by users on different output devices, the results may vary. Printing devices often interpret graphic elements and colors differently, therefore, variations in the output are possible. Variations also are possible when plotting maps on different printers produced by the same manufacturer.

### **CURRENT PLOTTER CONFIGURATION FOR LARGE-FORMAT MAP PRODUCTION FOR CENSUS 2000**

|               |   |
|---------------|---|
| Manufacturer: | Hewlett-Packard                                       |
| Model:        | HP DesignJet 1055CM                                   |
| Media Size:   | 36-inch wide roll                                     |
| Resolution:   | 600 dpi, color and black and white                    |
| Memory:       | 80 Megabytes RAM, 2 Gigabyte hard disk                |
| Languages:    | HP-GL/2, PostScript Level 3                           |
| Interface:    | HP JetDirect 600N 10/100Base-TX internal print server |

Control Panel Settings:

|                   |   |
|-------------------|---|
| Print Quality:    | HP-GL/2=Draft, PostScript or PDF=Normal |
| HP-GL/2 Settings: | Palette=Software<br>Merge=Off           |

|                |   |
|----------------|---|
| Image Quality: | Ink Emulation=Native<br>Color Calibration=On<br>Ink Limiting=On |
|----------------|---|

Page Format: HP-GL/2: Size=Inked Area  
PostScript or PDF: Size=Software

Graphics Language: Automatic

The Census Bureau does not endorse the use of a particular manufacturer's product for plotting maps. Therefore, below are general hardware specifications that will guide users in selecting an output device capable of plotting Census Bureau map products.

#### **RECOMMENDED CONFIGURATION**

Media Size: 36-inch wide roll  
Resolution: 600 dpi, color and black and white  
Memory: 80 Megabytes RAM, 2 Gigabyte hard disk  
Language: HP-GL/2, PostScript Level 2 or 3

#### **MINIMUM CONFIGURATION**

Media Size: 36-inch wide roll  
Resolution: 300 dpi, color and black and white  
Memory: 64 Megabytes RAM  
Language: HP-GL/2

#### **USEFUL DEVICE OPTIONS**

Since all map products to support Census 2000 will be available in PDF format, as well as selected high quality maps in PostScript format, a PostScript Level 2 or 3 interpreter is a useful option. A PostScript interpreter is required on the plotting device when plotting Census Bureau map products in PostScript and PDF format. This helps to assure the design of the maps as they were intended.

An internal hard disk also is useful to allow more efficient queue management and to maximize system throughput. On some devices, the hard disk is only utilized to facilitate the processing of PDF and PostScript files.