

GMB

GRAPHICAL MICROBROWSER

The Graphical MicroBrowser provides embedded systems with a small, yet capable browser.

GMB[™] is intended for use on the Internet. It meets most HTML 4.0 (see www.w3.org) requirements except for Java Script and Java applets. Work is in progress to achieve full HTML 4.0 compliance.

The MicroBrowser is based upon PEG (Portable Embedded GUI) and also uses the ICK (Image Conversion Kit) to convert GIF and JPEG images. PEG and ICK are included in the MicroBrowser price. In order to maintain good user responsiveness, image conversion is performed in one or more background tasks. Since *GMB* is PEG-based, it supports the full range of displays and input devices supported by PEG.

smxNet provides network access for *GMB* and *smxFile* provides file i/o. *smx* provides the necessary multitasking environment. *GMB* is also designed to be ported to other environments.

GMB is designed for embedded systems and thus has a very small memory footprint. Current size is about 260 KB, including PEG. Minimum RAM is 210 KB. However, this does not include dynamically allocated structures which are HTML page dependent. Quite a bit more RAM may be needed for some HTML pages.

The best way to appraise the MicroBrowser is to try one of the two demos:

FEATURES

- Internet ready
- HTML 4.0 subset compliant
- Forms
- Frames
- Tables
- GIF, JPG, Animated GIF
- Background Bitmaps
- Client Side Imagemaps
- Scalable Vector or bitmap fonts
- Portable 'C' source code
- HTML pages may come from ROM, disk, or network
- Uses standard 'PEG' graphics library
- Local Caching
- Metatag Support
- Integrated FTP client
- 260 KB code size, including PEG
- 210 KB RAM, minimum

Windows Demo

This demonstration is a special version that runs from inside a Windows 95 or 98 "DOS box". The demo uses Winsock to connect to the Internet. The text and graphics are displayed in a Win9x window using PEG graphics primitives. This demo uses Win9x only as a low-level pixel display device. Thus, on an embedded system the look and feel of the Browser will be very similar to this demo.

To install the package:

- 1) Download it.
- 2) Create the subdirectory where you want the browser to reside.
- 3) Either go into a DOS box and type *webdemo* or execute *webdemo.exe* from the Windows file manager.
- 4) Extract the file to the subdirectory that you have created. (for example \webdemo).
- 5) Type: cd\webdemo
webc
- 6) Now you can browse through the supplied files or you may click on the URL line and browse internet web pages.

SMX Demo

This is a completely stand-alone demo which can be run on any PC-compatible computer.

For requirements and instructions, see:
smxinfo.com/rtos/tcpip/readme.htm

Work In Progress

GMB is a stable, small-footprint browser which is adequate for accessing most websites and other applications such as reading HTML manuals. However, many applications such as Internet appliances require a more full-featured browser which is comparable to browsers available for desktop machines.

Hence, the following features are under development. Naturally, these will increase the memory footprint.

1. SSL
2. DOM
3. Cookies
4. Javascript
5. CSS
6. HTTP file transfer
7. Unicode

Items 1-3 will be available 4/1/2001.

Items 4-7 are expected to be available by 6/1/2001.