

PANASONIC FZ-21S PRESS RELEASE

For Immediate Release

NEW PANASONIC INTERACTIVE MEDIA PLAYER BRINGS A NEW LEVEL OF SOPHISTICATION TO THE PROFESSIONAL MULTIMEDIA MARKETPLACE

Secaucus, (NJ) June 1998 - Panasonic has unveiled a new TV-based interactive multimedia player which incorporates its proprietary M2 technology. Offering fast, high quality 3-D graphics, high resolution MPEG digital video and digital stereo, the Panasonic FZ-21S Interactive Media Player is today's solution for point-of-sale, point-of-information, sales presentations, manufacturing, design, education and much, much more.

The FZ-21S is lightweight and compact - about the size of a notebook PC. Its "plug and play" capability allows for easy hook up to a standard TV monitor or LCD projector. It features a 4X CD-ROM drive (for playback of M2-CD, as well as VideoCD 2.0) and a PCMCIA Type III slot for use with modem, ethernet, memory, hard drive or other compatible PC card devices. In addition, it can accommodate various control devices such as a touch-screen monitor, trackball, PC keyboard, or mouse via two PS/2 ports and one serial RS232C port.

The FZ-21S incorporates Panasonic's M2 technology, a 64-bit platform based on dual PowerPC602 processors and an advanced custom graphics chip set and OS, providing realistic polygon images and real time interactive control. Its selectable bit rate, hardware-based MPEG1 video decompression can provide picture quality that is virtually identical with the DVD format. It also offers the unique ability to integrate MPEG video and interactive 2-D or 3-D graphics, or use MPEG for object texture mapping.

The M2 System offers a vast array of applications, including:

- **3-D Viewing** - When used in manufacturing operations, realistic images of machine parts make them easier to identify. Thanks to the M2's high-performance 3-D graphic processing, images of products and components can be displayed and freely manipulated to show and examine a part's dimensions.
- **Housing Design** - The M2 can produce a realistic display of building exteriors, even while still in the design stage, as well as floor plans and interiors in 3-D with virtual walk-through. These simulations during the design and layout stage of a building are a dramatic and valuable aid in

displaying precisely what the finished product will look like, long before the first board has gone up.

- **Sales Promotion and Exhibit Presentations** - The M2's superb graphics and MPEG1 full-motion video capabilities allow for incredibly impressive and effective sales presentations. It is also ideal for directories and exhibit information at museums, art galleries and showrooms. In both cases, it is easy to set-up and use, and offers trouble-free operation.
- **Education** - The M2 can be used as an internet terminal and video server for schools or industry. Its startlingly clear color images enable it to display life-like images and graphics that help enhance the learning experience.
- **Public Information and Display Terminals** - By effectively combining sound, still images and full-motion video with 3-D computer graphics, the M2 enables retail stores and malls to highlight sales and events with eye-popping results. Public facilities can display directions, schedules and other vital information and services with interactive capability and complete reliability.
- **Virtual Reality Simulation** - For exercise and physical therapy, operation of industrial robotics, automotive or flight instruction, and other circumstances where realistic simulations are desired, the M2 provides virtual-reality interactivity.

"It's a quantum leap for the industry in both graphics speed and quality", declared Robert Whent, President of McGill Multimedia, Inc., a leading media company currently developing projects using the Panasonic Interactive Media System. "The FZ-21S easily beats expensive graphic workstations and outpaces other standalone interactive multimedia systems, including much-hyped DVD systems. With its advanced graphics, video and sound capabilities, M2's powerful 64-bit architecture will enable software developers to create titles that provide a whole new level of realism and engaging experiences not previously available on training and POS/POI systems."

Adds Thomas R. Sivley, CEO of RISE Int'l, Inc., an interactive media company, "M2 builds on the technology of the past and incorporates features that make it, possibly, the most unique platform for "Killer Applications" to come around in years." RISE, Int'l is incorporating a Panasonic Interactive Media Player into a training kiosk project in development for the Fire Museum in Memphis, TN. "M2 will be used to instruct and demonstrate how fire, through its combustible physics, consumes a wooden structure."

Clearly, the Panasonic M2 is an advanced system designed to perform a great deal of functions. This versatility is the result of combining a number of technologies into one amazing unit. Highlights of these advancements include:

- A dedicated graphic processing ASIC that allows superb high-speed 3-D computer graphic images to be displayed.
- High-resolution MPEG1 full-motion video capabilities which provide DVD-like image quality - ideal for business applications.
- MPEG1 full-motion video overlaid or pasted over 3-D computer graphics, seamless Computer Graphic and MPEG1 integration, in addition to other sophisticated effects, offer a nearly limitless range of content creation capabilities.
- Network communication via public telephone lines using a modem, or as a communication terminal using a LAN interface.
- The M2 system is delightfully easy to operate. No special training nor PC experience is required.
- Also available from Panasonic, for the professional multimedia producer, is a developer tool kit for authoring of M2-CDs for playback on the FZ-21S system. The tool kit requires a Macintosh PC and includes conversion tools that allow developers to use many of the popular content creation tools currently on the market. An easy non-programmer's tool will be offered later this year as well.

In addition, developmental support for the M2 is available on a consultation basis.

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