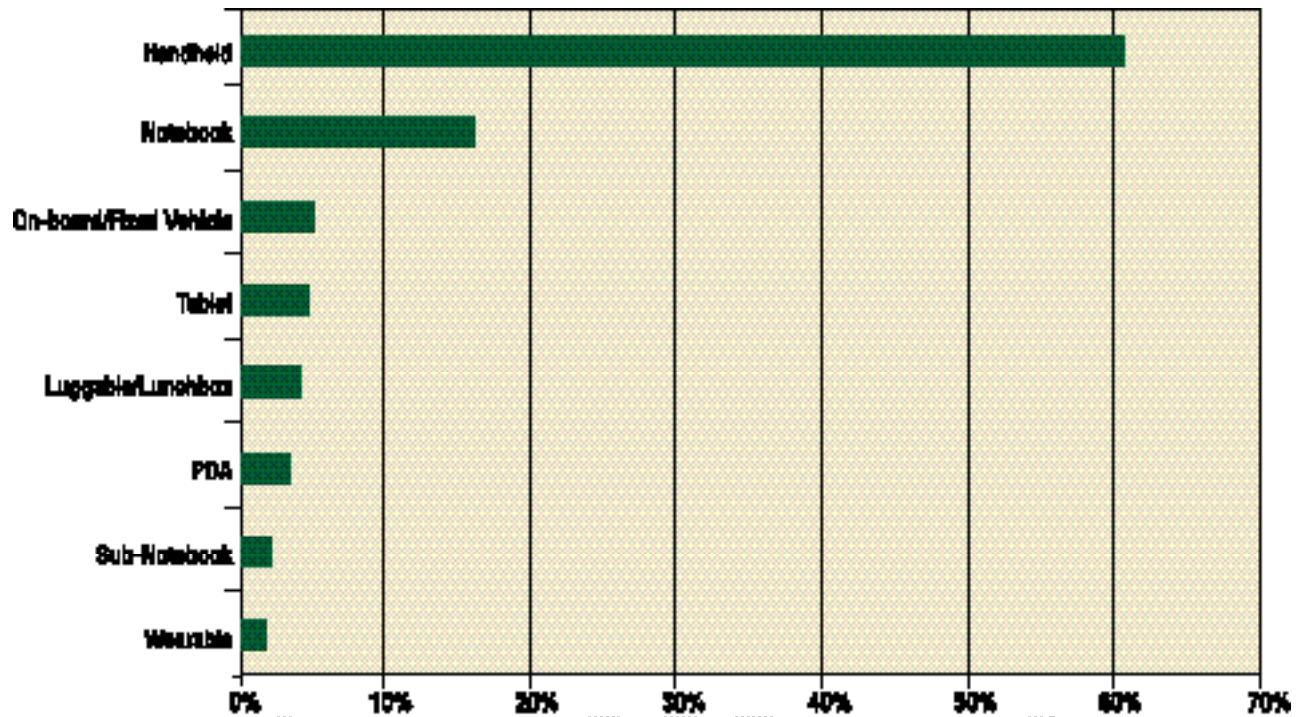


Industry Insider

Share of Rugged Mobile Computers by Formfactor 2000 Total: **\$3,093.0 Million**



Source: Venture Development Corp.

Study Sees Explosive Growth for PDA and Wearable Computers

According to a new market study from Venture Development Corporation (VDC), worldwide shipments of rugged mobile computers totaled \$3,093 million in 2000. VDC envisions slower growth through 2001. However, action by the Federal Reserve is expected to begin reversing the slowdown by the first quarter of 2002. As a result, VDC forecasts the worldwide market will expand at a CAGR of 14.1% through 2005, reaching \$5,981.1 million.

As the two fastest growing worldwide rugged mobile computer formfactors, PDA and wearable computers are forecast to grow, on a dollar volume basis, at a 40.7% and 40.2% CAGR through 2005, respectively. VDC expects PDA formfactor computers to grow from the second smallest product category to the third largest category in 2005. Wearable computers are expected to grow

from the smallest product category in 2000 to the fifth largest category in 2005.

In general, VDC believes that the real opportunity for rugged mobile computer vendors lies in offering products that are "rugged enough" for specific user applications; these products will be offered at price points that will reflect an attractive price/ruggedness ratio.

PDA computer products are seen as having the greatest adoption in the emerging horizontal markets of healthcare, finance/insurance, field sales, and others, because users in these applications rely on the larger screen size, smaller size and weight, wireless connectivity and Web access, and integrated bar code scanning capability offered by the PDA formfactor.

Wearable computer products, which have been around for some time, are believed to be

on the verge of explosive growth as companies, such as IBM, Hitachi, Xybernaut, Syvox, and many others, make investments in enhancing speech recognition technologies and other improvements in the wearable technology. VDC forecasts the fastest growth for wearable computer demand in sectors such as field service, vehicle maintenance, warehousing and healthcare. Users in these sectors are expected to embrace the many benefits offered by this hands-free mobile solution.

The report entitled "The Global Markets for Rugged Mobile Computers, Volume 1: Rugged Mobile Computer Products" is available from Venture Development. See [www.vdc-corp.com/products/br00-17-frames.html].

EventCalendar

6/3/01

SuperComm
Atlanta, GA
www.supercomm2001.com

6/5/01

TechNet
Washington, D.C.
www.technet2001.com

6/12/01

Real-Time & Embedded Computing
Conference/COTS Show
Melbourne, FL
www.rtcgroup.com/rtecc
www.cotsshow.com

6/14/01

Real-Time & Embedded Computing
Conference/COTS Show
Huntsville, AL
www.rtcgroup.com/rtecc

6/19/01

Applied Linux & Embedded Internet Show
Eindhoven, The Netherlands
www.aexpo.com

6/26

Embedded Linux Expo & Conference
San Jose, CA
www.elinuxexpo.com

7/9/01

Embedded Systems Conference
Chicago, IL
www.esconline.com/chicago

8/14/01

Embedded Internet Conference
Santa Clara, CA
www.embeddedinternet.com

8/14/01

Real-Time & Embedded Computing
Conference/COTS Show
Sydney, Australia
www.rtcgroup.com/rtecc
www.cotsshow.com

8/16/01

Real-Time & Embedded Computing
Conference/COTS Show
Melbourne, Australia
www.rtcgroup.com/rtecc
www.cotsshow.com

8/21/01

Embedded Computing & Real-time
Computer Show
Cape Town, South Africa
www.aexpo.com

8/23/01

Embedded Computing & Real-Time
Computer Show
Johannesburg, South Africa
www.aexpo.com

8/28/01

DSP Expo & Conference
Dallas, TX
www.rtcgroup.com

8/28/01

Real-Time & Embedded Computing
Conference/COTS Show
Dallas, TX
www.rtcgroup.com/rtecc
www.cotsshow.com

8/30/01

Real-Time & Embedded Computing
Conference/COTS Show
Houston, TX
www.rtcgroup.com/rtecc
www.cotsshow.com

If your company produces any type of industry event, you can get your event listed by contacting aaronf@rtcgroup.com.

This is a FREE industry – wide listing.

MathWorks to Nurse MATRIXx Until Its Demise

With its acquisition of Integrated Systems last year, Wind River Systems inherited that company's MATRIXx product line, which had been a direct competitor with the Matlab and Simulink products of The MathWorks. The MathWorks has now licensed the distribution rights for MATRIXx and as a result has taken on some 8,000 commercial and educational users of the product.

The MathWorks has announced an extensive and thorough support program, which includes having their staff trained in support by Wind River personnel at their facilities. It lists for MATRIXx users, however, the company has announced that the support of Version 7 of the product will be discontinued. In other words, there'll be no more updates. The MathWorks will provide support for two years, after which users can choose to move to the MathWorks products or go it alone.

To aid in the transition, Wind River has set up customer-training programs for those who wish to cover their own models for use with MathWorks and has added a MATRIXx support site. The MathWorks will continue to provide a migration path for their product schedule re-

Enea Teams With AN Software for Embedded

Enea OSE Systems has announced a graphical environment for embedded systems through a partnership with AN Limited and Swell Software. AN is contributing its browser technology and Swell software its embedded technology. At the basis will be a software library, which is already part of Enea OSE RTOS.

The OSE will integrate the ANT Fresco browser and SimpleEmail e-mail client, which are specifically targeted for wireless terminals, set-top boxes and other Internet devices. Fresco is a platform-independent with a small memory footprint for quick integration and porting to small devices. The Swell Portable Embedded GUI (PEG) is also designed for a small footprint and use in embedded devices using LCD and small video displays. The PEG toolkit is designed for writing applications with window capabilities and a custom look and feel.

Enea's OSE RTOS spans a range of microprocessors and DSPs and is targeted at distributed systems and telecom applications. The partnership is intended to offer customers a "one-stop-shopping" alternative for putting together small connected devices that depend on user interaction.

RadiSys to Acquire S-Link

RadiSys has signed an agreement to acquire the privately held S-Link in a cash transaction valued at approximately \$4.5 million. The acquisition is aimed at enhancing

Protel International Acquires Tasking Group

Protel International, a developer of Windows-based electronic design automation (EDA) software, has announced that it has acquired Tasking, a specialist in tools for embedded software development for US\$38 million. The acquisition is being touted as a "single-source" solution for electronics designers.

Recently moves in the industry system-on-chip design methodologies, combined with the fact that there's a convergence between hardware and software design tasks, have led to an increasing need for greater links between hardware and software design envi-

ronment. This comes shortly after the programmable device market. Since establishing itself in the market, Protel apparently hopes that the acquisition will provide the means to move forward by offering a single source solution for embedded software design.

The acquisition of Tasking brings in a suite of tools for use in embedded software development, particularly in the area of 8- and 16-bit micro- and -an area that has the close relationship between corresponding hardware and software. Protel is targeting. Tasking is a development of software tools for embedded software. Moreover, the company is part of the Extend The Internet Initiative, which will be a driving force in the Internet standards through solutions for embedded Internet that enables connection of the Internet).

Protel will acquire Tasking's network marketing direct sales networks across Asia, Europe and it will get Tasking's OEM major chip manufacturers including Intel, Motorola, NEC

Technologies, Philips Electronics, Parthus Technologies, Philips Semiconductors, Sanyo, Seiko EPSON and STMicroelectronics.

The management teams of Protel and Tasking are now currently focusing on the integration of the businesses. They're rapidly moving forward with the strategies to bring their leading brands to an even wider customer base and seek out new areas of market penetration that will continue to strengthen their market leading position in the desktop arena.

S-Link has already developed many layers of the SIGTRAN signaling stack. Another development is a software management system for gateways, complete with a Web browser interface that allows monitoring and configuration of gateways in a network, including full SNMP v2 support.



Applied Linux & Embedded Internet Show in Stockholm

Zaltbommel, The Netherlands—ACTIVE Exhibitions Europe organized a new event in Stockholm for the embedded computing market: The Applied Linux & Embedded Internet Show on 5 April 2001. With 17 exhibitors and over 240 visitors, both exhibitors and visitors were very satisfied with this introduction to the Scandinavian market.

The seminar program consisted of hot topics such as “Linux in Embedded Applications,” “Using Linux in Real-Time Systems,” “Hard-Real-Time Linux for Embedded Systems,” “Advanced High-Availability Linux,” “Heterogeneous Distributed Systems,” “Solutions for Embedded Real-Time Linux Systems” and “Rethinking Embedded Development With Linux.”

Keynote speaker Nicholas McGuire attracted many specialists in the market. His speech on the topic of “Hard-Real-Time Linux for Embedded Systems” was very successful and had over 100 people in attendance. His presentation can be downloaded from [www.aexpo.com].

This year, ACTIVE will also organize the Applied Linux & Embedded Internet Shows in Eindhoven (the Netherlands), Paris, London and Milan. For further information visit [www.aexpo.com].

The four-day show in Milan will consist of two days of Conferences and Exhibitions (28-29 November) and two days of Real-Time Linux Workshops (26-27 November). This show will draw many Linux and Internet specialists from all over Europe and the U.S.



“An introduction to the Russian market.” Mrs. Olga Sinenko (to the right) and other exhibitors network at the Embedded Computing & Real-Time Show in Moscow.

Embedded Computing & Real-Time Computer Show in Moscow

Zaltbommel, The Netherlands—ACTIVE Exhibitions Europe, marketing organization to the real-time and embedded computing industry, is very proud that the first Embedded Computing & Real-Time Computer Show in Moscow on 20 March 2001 was an overwhelming success.

With over 220 visitors at the exhibition and a full attendance of the conferences, it has proved there’s a great interest in the embedded market in Russia. The conference issues were, for instance, on “Real-Time and Embedded Systems in Russia,” “Developing for Embedded Power PC,” “Sun UltraSPARC PCI and CompactPCI” and “Java in Embedded Control and Telecommunication.”

For many exhibitors, the participation in the show in Moscow meant an introduction to the Russian market. They were very enthusiastic about the new business contacts that are enabling them to generate a lot of new business.

ACTIVE is planning to do the Embedded Computing & Real-Time Computer Show in Moscow again next year in April 2002. Due to this year’s success, new companies have already confirmed they will participate in the Moscow event.

Organization

For organizing an event in Russia, ACTIVE learned it was necessary to have a local partner. With help of this partner, they were able to receive local information on the embedded market and do all their communicating in the Russian language to reach the local visitors. For more information visit [www.aexpo.com].

International Calendar

Embedded Computing & Real-Time Computer Show

- | | |
|--|--|
| 8/21/01
Cape Town, South Africa | 9/25/01
Utrecht, The Netherlands |
| 8/23/01
Johannesburg, South Africa | 9/27/01
Brussels, Belgium |
| 9/11/01
Oslo, Norway | 10/2/01
Toulouse, France |
| 9/13/01
Gothenburg, Sweden | 10/4/01
Paris, France |
| 9/17/01
Stockholm, Sweden | 10/9/01
London, United Kingdom |
| 9/19/01
Helsinki, Finland | 12/3/01
Tel Aviv, Israel |

Applied Linux & Embedded Internet Show

- | |
|--|
| 6/11/01
Tel Aviv, Israel |
| 6/19/01
Eindhoven, The Netherlands |
| 10/4/01
Paris, France |
| 10/9/01
London, United Kingdom |
| 11/26-29/01
Milan, Italy |

For complete information visit: www.aexpo.com