

Meiko

Company Overview

CORPORATE • DETAILS

Corporate HQ:	Meiko World, Waltham USA.
Company Ownership:	Private, employee owned.
Installed Customer Base:	Over 430 parallel systems in more than 250 organisations installed worldwide.
Employees:	Over 100 worldwide. More than 60% of the workforce is involved in R&D, working to advance the performance of MPP technology in large scale computing applications, and to provide the highest level expertise in hardware, software and applications support.
R&D and QA:	R&D and QA operations are based in Bristol, UK and Waltham, USA.
Key Technology Partners:	SunSoft, Inc. Oracle Corporation Fujitsu Limited ICL
Sales & Distribution:	Sales and distribution offices covering North America, Europe and Asia.

Meiko Hotlines:

USA: +1 617 890 7676
Fax: +1 617 890 5042

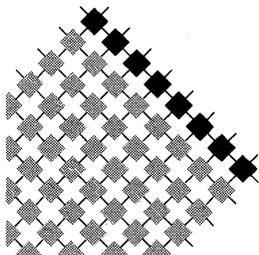
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Meiko policy is one of continuous development. These specifications may change without notice

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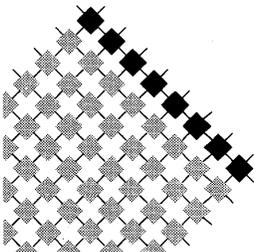
THE • COMPANY

Founded in 1985, by the team responsible for the implementation of the Inmos Transputer, Meiko is a pioneer in the field of Massively Parallel Processing (MPP).

Meiko has gained a reputation for technical innovation and expertise by providing MPP solutions to demanding computing requirements. Meiko's product range is known as the Computing Surface, a scalable, distributed memory parallel processing computer using differing types of powerful processors together and capable of scaling from deskside to beyond supercomputer in performance. The successful adoption and integration of commodity technologies and industry standards is key to Meiko's position as one of the leading MPP suppliers. Achievements in the MPP field include the following landmarks:

- 1985** World's first parallel Transputer machine, two 100 processor systems built for the launch of the Transputer.
- 1986** First Fortran compiler for multi-processor Transputer systems.
- 1987** 100 Computing Surface systems sold.
- 1988** Adoption of SPARC and SunOS, integrating full industry standard UNIX environment with MPP.
- 1989** First i860 Computing Surface application to achieve over 1 Gflop.
- 1990** Tsunami FPU designed for Sun Microsystems.
- 1991** World's first commercial implementation of ORACLE Parallel Server relational database management system for MPP system.
- 1992** Introduction of CS-2, a re-engineering of the Computing Surface architecture designed to bring unprecedented levels of balanced performance and reliability.

Meiko has an enviable history working with leading edge users in more than 250 organisations and has developed an in-depth understanding of the requirements that now define high performance computing systems. Meiko has the largest worldwide installed base of scalable parallel computers and is the leading vendor in Europe.



MARKET • FOCUS

Massive improvements in the cost performance of computing can enable a fundamental change in the way individuals and enterprises work. Massive but cost-effective computing supports new methods and techniques being developed to enable unprecedented levels of information sharing and co-operation. The opportunity lying ahead is the deployment of information technology to improve commercial competitiveness and bring positive change to our society in general. The huge information processing capability of MPP systems, combined with new levels of price-performance, are pre-requisites for deploying modern strategies of customer orientated team-working. Meiko leads the way in provision of these systems and services.

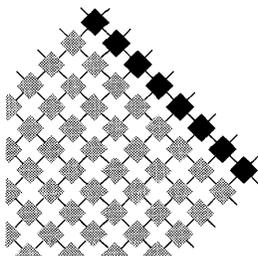
Meiko is accelerating the adoption of massively parallel technology by focussing on the provision of platform solutions to key market segments: **High Performance Computing (HPC)** and **Enterprise Systems (ES)**. The twin demands for greater computing power and lower cost are pushing computer users towards innovative solutions. By driving acceptance in these areas, Meiko is spreading the understanding of the capabilities of MPP systems and the benefits they bring.

HPC was once the sole domain of computer scientists and researchers investigating Grand Challenge problems. HPC typically focusses on solving the most demanding numerical problems: computational fluid dynamics, finite element modelling, climate modelling, weather forecasting, visualisation for product design and econometric modelling. The high levels of performance demanded by scientific supercomputer users are now considered essential by mainstream commercial and industrial organisations dependent on technology to develop their productivity and a competitive edge.

Enterprise Systems provide the largest organisations with IT support for database and user networks. Meiko platforms enable organisations to harness the capabilities offered by modern data storage and manipulation technologies such as RDBMS' and Object databases to support an enterprise wide data repository, accessible to all users who need to manipulate it.

Both market segments require the ability to manipulate large volumes of data and perform large amounts of scalar and vector computation. Both also demand scalable solutions and excellent price-performance. The requirements are converging so that the ideal platform for any enterprise is a general purpose engine sufficiently flexible to coherently support any specialist computing workload in real-time.

Meiko products are ideally suited to delivering the practical, scalable computing performance required by organisations to meet the challenges ahead.



TECHNOLOGY • CAPABILITY

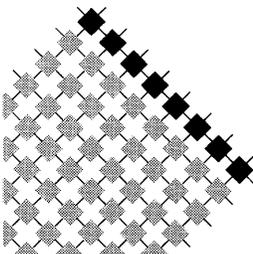
Meiko MPP systems combine leading commodity technologies and industry standards with an in-depth understanding of parallel processing: scalable computation, scalable high performance I/O, high bandwidth, low latency inter-processor communications and a rich, productive software environment. Meiko's strength focusses on the key areas of silicon design; inter-processor communications, parallel software and overall architectural integration; enabling Meiko to support systems with massive processing power. The underlying computer architecture enables systems to scale from 1 processor to over 1000 processors, allowing Meiko to offer a range of computer systems providing scalable computer performance from the desk-side to mainframe and beyond.

Architectural Philosophy

Since 1985 Meiko has successfully provided solutions to intensive computing requirements through the adoption of parallel processing computing technology. Meiko's first generation Computing Surface systems were based on the most powerful commodity technologies available at that time, and during their lifetime have successfully integrated newer and more powerful components as they became available. In the current generation CS-2 systems all fundamental architectural elements have been re-engineered to maximise use of commodity hardware and software technologies, and adhere to industry standards :

- Adherence to Open Systems standards
- Use of Industry standard commodity components
- Scalability for all major architectural parameters
- Leading-edge computing performance and price-performance
- High availability through architectural fault tolerance
- Multi-user supercomputing facilities
- Support for current and emergent programming paradigms

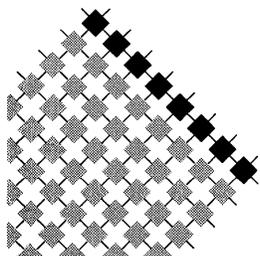
The selection of commodity components is a key strategy that leverages product development and product cost/performance. By using components developed and supported by the industry's largest suppliers, Meiko can bring state-of-the-art product lines to market with minimum time lag; allowing the company to focus innovation on the unique technology required for scalable high performance MPP systems.





A powerful example is the leverage gained from Meiko's deployment of SPARC and Solaris for CS-2. The use of Solaris avoids the investment and uncertainty in developing a proprietary POSIX compliant UNIX operating system, while also providing CS-2 with an established programming environment and a third party application base second to none. The choice of SPARC processors and their standard I/O buses gives an exceptionally rich peripheral and networking capability, features which often necessitate compromise and shipment delays for proprietary high-performance architectures.

CS-2 systems offer leading price-performance and functionality by using the most effective technologies available. Meiko is ideally positioned to provide solutions to those organisations with the greatest performance requirements by offering a product range designed to outperform, outgrow and outlast conventional computing resources.



MARKETS & CUSTOMERS

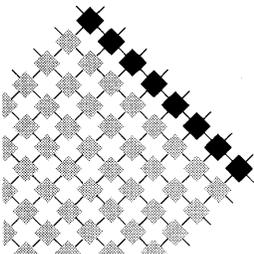
Meiko's customer base of over four hundred systems is diverse in nature and application, and includes systems shipped to the following Academic, Commercial, Industrial, Financial, Military and Research organisations.

Industrial & Commercial

BP	Intel Corporation
British Aerospace	Lloyds of London Press
British Broadcasting Corporation	Matra Marconi Space Systems
British Telecom	Medeva
C Itoh	Nat West Home Loans
Cray Research	Oracle Corporation
EASAMS	Philips Lighting
Electricité de France	Rolls Royce
Ensign Geophysical	Seeboard
General Electric	Shell
Glaxo	Seismograph Services
Hewlett Packard	Short Brothers
Hitachi	Toyota Motor Corporation
IBM	UK Atomic Energy Authority
ICI	Xerox
Independent Television	

Defence

Aircraft Research Association	DRA Military Division (RARDE)
DRA Aerospace Division (RAE)	GCHQ
DRA Electronics Division (RSRE)	Royal Military College
DRA Maritime Division (ARE)	US Department of Defence

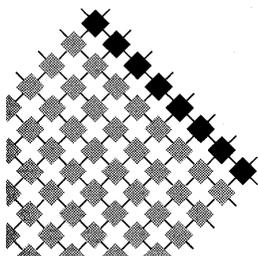


MARKETS & CUSTOMERS

Research & Academia

California Institute of Technology
CNR - IRSIP, Italy
Daresbury Laboratory
Draper Laboratories
DOTAC, Australia
Edinburgh Parallel Computing Centre
FhG
Heinrich Hertz Institute
Institute of Cancer Research
Israel Institute of Technology
ISPRA, Italy
INRIA, France
National Physical Laboratory
North Eastern University
NCAR

Rutherford Appleton Laboratory
University of Bristol
University of Copenhagen
University of Erlangen
University of Edinburgh
University of Hawaii
University of Hong Kong
University of Loughborough
University of Montreal
University of Salford
University of Southampton
University of Syracuse
University of Toronto
US Department of Energy
Utah State University





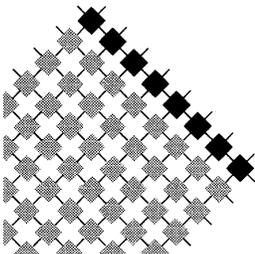
For further information about Meiko and the Computing Surface product range, please contact Meiko at the offices listed below:

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