ASK Group

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FOR IMMEDIATE RELEASE

ASK GROUP NAMES PRESIDENT OF DATABASE & CONNECTIVITY BUSINESS UNIT

Former Amdahl, IBM Executive To Lead Open Systems Growth

SANTA CLARA, Calif., Jan. 25, 1994 -- The ASK Group, Inc., strategic business software developer and one of the largest independent software companies worldwide, today announced the appointment of Eric L. Miles to the position of president of the company's Database and Connectivity Business Unit located in Alameda, Calif.

Formerly vice president of Open Products Development for Amdahl Corporation, Miles, 47, assumes leadership of the business unit that designs and markets the ASK INGRES and ASK OpenINGRES family of intelligent relational database management system (RDBMS) and connectivity products. These products streamline the management and access of the ever-increasing amount of enterprise-wide information that is critical to running a business.

ASK Group President and CEO Pier Carlo Falotti said, "Eric brings the background, expertise and vision in open systems and database development to lead the INGRES product unit in its mission to provide customers with solutions for managing their enterprise information systems. And his experience on the customer side provides a unique blend of a customer perspective and technical focus on a broad range of hardware platforms and software technologies."

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At Amdahl, Miles headed the company's Open Products organization, responsible for all UNIX-based operating system and vertical solution software, as well as symmetric multiprocessor systems development. Prior to Amdahl, Miles was senior vice president of Technology and Communications Services for Bank of America, responsible for all engineering development, integration, testing and deployment of data processing and communications support.

Miles is also a 17-year veteran of IBM Corporation where he progressed to his final position as director of development for the Santa Teresa Laboratory in San Jose, Calif., responsible for all software, including database, access methods, high level languages and system support products. He holds a bachelor of science degree in mathematics from Bowling Green University.

Additional ASK Group business segments serving the high-growth information technology market include: the Application Development Tools Business Unit, which markets the ASK OpenROAD and ASK Windows4GL products; the Manufacturing Systems Business Unit, provider of the ASK MANMAN/X, ASK MANMAN, ASK SIM/400 and ASK MAXCIM line of manufacturing business management systems; and Professional Services which assists ASK Group customers optimize their open software solutions.

The ASK Group, Inc. is a developer and integrator of strategic business software, providing corporations with the technologies and services to build, connect, manage and maintain information systems. The company achieved revenue of $426 million for the fiscal year ended June 30, 1993, and serves customers worldwide through its more than 2,300 employees in 82 offices. The company's shares are traded publicly on the NASDAQ National Market System under the symbol ASKI.

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For Release at 1:15 p.m. PST

ASK GROUP ANNOUNCES SECOND QUARTER RESULTS

Company Takes Restructuring Charge; Outlines Plan

SANTA CLARA, Calif., Jan. 13, 1994 -- The ASK Group, Inc.
(NASDAQ:ASKI) today announced financial results for its fiscal second quarter
ended Dec. 31, 1993, reporting a loss of $13.7 million or $.59 per share compared
to a profit of $3.6 million or $.16 per share a year ago. The loss includes a $4.0
million restructuring charge and a $3.8 million provision for taxes.

Before the restructuring charge, the company had a loss from operations
of $5.3 million for the quarter, principally due to a revenue shortfall in North
America. Second quarter revenue declined $12.9 million from a year ago to
$100.6 million primarily due to a $9.0 million decline in the resale of hardware.

Year-to-date results for fiscal 1994 were a loss of $20.5 million or $.89 per
share compared to a loss of $4.0 million and $.18 per share in fiscal 1993.

ASK Group President and Chief Executive Officer Pier Carlo Falotti said,
"To position the company for profitablity in the next quarter and beyond we are
restructuring to reduce costs. The restructuring charge of $4.0 million is
principally related to headcount reductions, largely in North America, which we
expect will approximate 8 percent of worldwide employment."

Falotti added that the restructuring would focus on improved
productivity and would also increase the company's sales focus by emphasizing
select industry markets where the growth opportunities are the greatest.

In addition to the $4.0 million restructuring charge, second quarter results
included a $3.8 million tax expense, despite the pre-tax loss. The charge consists
of a provision for taxes on foreign earnings with no offsetting benefit for U.S. tax
losses. The company will take the benefit of these tax losses against future U.S.
earnings.

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While acknowledging the need for change, Falotti expressed optimism about business prospects. He said the focused industry strategy in North America, adopted in July 1993, had produced a number of strategic sales wins against competitors, including several in the financial services and retail markets.

Falotti added, "We continue to enjoy high visibility and a solid market position in markets outside the U.S. Last quarter we introduced important new products which have been leveraged by our international sales operations into a number of new significant opportunities, like the U.K. Post Office."

Falotti cited a number of other indicators, demonstrating the positive impact of the company's open software and new product strategies:

- Positive trends in database and tools license revenue, which increased 45 percent from the previous quarter;

- Combined software license and services growth of 37 percent in Asia for database and tools products compared to the same quarter a year ago;

- Combined ASK MANMAN and ASK MANMAN/X license growth of 35 percent versus a year ago;

- An overall 8 percent improvement in services revenue compared to the prior quarter, driven by an increased focus on professional consulting and maintenance support services;

- Sequential growth in Europe of 62 percent, reinforcing the company's number two market share position.

The ASK Group, Inc. is a developer and integrator of strategic business software, providing corporations with the technologies and services to build, connect, manage and maintain information systems. The company achieved revenue of $426 million for the fiscal year ended June 30, 1993, and serves customers worldwide through its more than 2,500 employees in 82 offices.

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The ASK Group, Inc.
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share amounts)

	Three Months Ended December 31,	
	1993	1992
	(unaudited)	
Net revenue:		
Software revenue	$ 51,938	$ 57,864
Service revenue	43,964	42,019
Hardware revenue	4,701	13,665
Total revenue	100,603	113,548
Costs and expenses:		
Cost of systems	10,701	23,517
Cost of services	19,995	20,477
Product development	12,205	11,691
Selling, general and administrative	60,981	49,026
Restructuring charge	4,000	-
Amortization of goodwill and other purchased intangibles	2,047	2,083
Total costs and expenses	109,929	106,794
Income (loss) from operations	(9,326)	6,754
Interest and other income, net	288	42
Interest expense	(900)	(753)
Income (loss) before income taxes	(9,938)	6,043
Provision for income taxes	3,778	2,417
Net income (loss)	$ (13,716)	$ 3,626
Income (loss) per share	$ (0.59)	$ 0.16
Shares used in per share calculation	23,067	23,251

The ASK Group, Inc.
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share amounts)

	Six Months Ended December 31,	
	1993	1992
	(unaudited)	
Net revenue:		
Software revenue	$ 87,602	$ 91,717
Service revenue	84,596	81,095
Hardware revenue	12,260	24,468
Total revenue	184,458	197,280
Costs and expenses:		
Cost of systems	23,545	39,862
Cost of services	38,429	38,706
Product development	22,516	22,184
Selling, general and administrative	112,207	98,351
Restructuring charge	4,000	-
Amortization of goodwill and other purchased intangibles	4,036	4,166
Total costs and expenses	204,733	203,269
Loss from operations	(20,275)	(5,989)
Interest and other income, net	142	794
Interest expense	(1,415)	(1,390)
Loss before income taxes	(21,548)	(6,585)
Benefit from income taxes	(1,098)	(2,634)
Net loss	$ (20,450)	$ (3,951)
Loss per share	$ (0.89)	$ (0.18)
Shares used in per share calculation	23,004	21,474
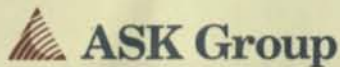
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FOR IMMEDIATE RELEASE

THE ASK GROUP AND ROSS SYSTEMS
INK VAR AGREEMENT

ALAMEDA, Calif., Jan. 17, 1994 -- The ASK Group, Inc.
(NASDAQ:ASKI), strategic business software developer and one of the largest
independent software companies worldwide, and Ross Systems, Inc., today
announced a value added remarketer (VAR) agreement to create a runtime
interface between the ASK INGRES Intelligent Database and Ross Systems'
entire line of commercial client/server applications. The agreement reflects
both companies' push into the open systems computing market.

The VAR agreement between the two companies also provides for
joint sales calls, customer cross referrals, cooperative participation at trade
shows, and other collaborative sales, marketing, and customer support
programs.

"Ross Systems' integrated financial and manufacturing applications
take full advantage of our powerful ASK INGRES Intelligent Database," said
George Kellar, marketing director, North America Operations for the ASK
Group. "Now our customers can migrate their financial applications to the
client/server environment without sacrificing security, data integrity, or
performance."

The teaming of the ASK INGRES Intelligent Database and Ross
Systems' financial, manufacturing, distribution, and human resources
applications will enable users to cross application boundaries to create highly

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customized reports and perform complex 'drill down' queries. For example, a user can view a General Ledger summary balance and trace it back to source documents in other applications such as purchase orders and invoices. With all data stored in a single unified database, customers also achieve a level of integration that virtually eliminates processing redundancies. For example, information entered only once is shared across all modules of the company's human resources system.

"Our partnership with the ASK Group is fundamental to our client/server strategy," said John Hille, vice president of strategic channels at Ross Systems. "The ASK Group's reputation as a well-established database vendor is important to many of our customers who are moving into the uncharted territory of client/server computing and who place a high value on stability in their suppliers. In addition, the ASK Group has extensive experience in open systems, especially in the Digital and HP environments -- our principal platforms."

Ross Systems' integrated solution set covers a broad range of business applications. The company's Renaissance CS Financial Series of client/server accounting products is built on Ross' open 4GL, GEMBASE. The PROMIX Processing Manufacturing Series is a comprehensive, fully integrated, enterprise-wide, manufacturing and control system. The PROMIX Distribution Series supports total supply chain management. And the Human Resource CS Series provides human resources and payroll applications offering a high degree of flexibility, control, and security.

The server component of the Renaissance CS Series and other Ross Systems solutions are available for Open VMS, VMS, Ultrix, and HP-UX systems. The client component supports Windows-based PCs, Apple Macintoshes, UNIX workstations running MOTIF, and character terminals.

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Initially, the ASK INGRES versions of Ross Systems' applications are available for the HP-UX environment. They are available immediately. Ross Systems' applications will be compatible with the ASK OpenINGRES Intelligent Database, which will be available in April.

The ASK Group also offers ASK MANMAN/X, a UNIX-based manufacturing business management software system, for use with the ASK INGRES Intelligent Database.

Ross Systems, Inc., develops and markets a broad range of business solutions in the following open systems environments: Digital Alpha AXP architecture, Open VMS and OSF/1; and Hewlett-Packard's HP-UX and MPE/iX. Ross products encompass financial, manufacturing, human resource, and distribution systems applications. The company serves its customers through 38 offices worldwide. Corporate headquarters are located at 555 Twin Dolphin Drive, Redwood City, Calif., 94065.

The ASK Group, Inc., headquartered in Santa Clara, California, is a developer and integrator of strategic business software, providing corporations with the technologies and services to build, connect, manage and maintain information systems. With revenue of $426 million for fiscal year ended June 30, 1993, the company employs more than 2,300 employees in 82 offices who serve customers worldwide. The company's shares are traded publicly on the NASDAQ National Market System under the symbol ASKI.

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FOR IMMEDIATE RELEASE

THE ASK GROUP AND CODA REACH
VALUE ADDED REMARKETER AGREEMENT

ALAMEDA, Calif., Jan. 17, 1994 -- The ASK Group, Inc.
(NASDAQ:ASKI), strategic business software developer and one of the largest
independent software companies worldwide, and CODA Incorporated today
reached a value added remarketing (VAR) agreement whereby CODA will
bundle the ASK INGRES Intelligent Database as an integral component of its
Open Accounting System (OAS) and Integrated Accounting System software
solution.

Under the agreement, CODA will leverage the ASK INGRES
Intelligent Database to allow organizations to fully distribute financial
accounting applications throughout the enterprise. This provides users at
headquarters and branch sites with a truly integrated financial management
environment in which all ledgers are synchronized and balanced at all times.

"The ability of CODA's products to work with the ASK INGRES
Intelligent Database gives our customers a powerful accounting solution as
they migrate their financial applications to client/server environments," said
George Kellar, marketing director, North America Operations, for the ASK
Group. "The integration of INGRES with CODA-OAS marks an important
step forward in meeting the needs of corporate financial organizations for
access to effective, timely and cost-effective information for critical decision
making."

CODA accounting solutions -- including its OAS and Integrated
Accounting System (IAS) general ledger, accounts payable, accounts

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receivable, and project accounting, budgeting and reporting applications --
maintain information in a single, unified database. Because all functional
areas are instantly updated when any transaction occurs, information is
always current and available for snapshot viewing or to generate reports. As
a result, companies can better make strategic decisions. For example, an up-
to-the-second picture of a company's net cash position enables a company to
maximize its overnight investment revenues.

"CODA solutions were designed 'from the ground up' to take
advantage of the unified architecture of relational database design," said
Brooke Savage, vice president, marketing, at CODA. "By ensuring timely and
meaningful financial information, CODA's database-oriented solutions
obsolete the batch processing architecture of traditional 'modular' systems,
which require manually reconciling multiple islands of information."

Besides providing for product interfacing, the agreement allies the two
companies in their marketing programs by providing for joint account calls,
customer cross referrals, cooperative participation at trade shows, and other
collaborative sales, marketing, and customer support activities.

CODA's Open Accounting System delivers powerful accounting
functionality to Windows-based PC desktops in client/server environments.
CODA-OAS also supports a wide range of UNIX and POSIX compliant servers
to provide robust processing power to client PCs, as well as to character
terminals and X terminals running MOTIF. CODA's Integrated Accounting
System is an accounting software solution for the Digital, IBM AS/400, and
Hewlett-Packard lines of computers.

The ASK INGRES versions of CODA's applications are available
immediately for the HP-UX, IBM AIX, SunOS, and OSF/1 operating
environments. These products will be compatible with the ASK
OpenINGRES Intelligent Database, which will be available in April.

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The ASK Group also offers ASK MANMAN/X, a UNIX-based manufacturing business management software system, for use with the ASK INGRES Intelligent Database.

CODA Incorporated is one of the world's leading providers of accounting software and associated professional services. The firm is recognized as one of the top 100 software companies in the world. Founded in 1979 in the UK, CODA established it U.S. operations in Manchester, NH, in 1988 and currently has over 16 service and support locations worldwide. More than 1,000 leading organizations -- including British Petroleum, TransCanada PipeLines Ltd., Eveready Battery Corp., Caterpillar, Alcoa Corp., and U.S. West -- use CODA accounting solutions.

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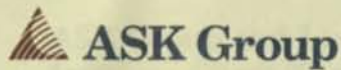
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FOR IMMEDIATE RELEASE

ASK GROUP AND LAWSON SOFTWARE SIGN
AGREEMENT TO INTERFACE CLIENT/SERVER APPLICATIONS
WITH ASK INGRES INTELLIGENT DATABASE

ALAMEDA, Calif., Jan. 17, 1994 -- The ASK Group, Inc.
(NASDAQ:ASKI), strategic business software developer and one of the largest
independent software companies worldwide, and Lawson Software today
announced an agreement under which Lawson will interface its
client/server-based accounting, distribution, and human resource application
suites with the ASK INGRES Intelligent Database.

"This alliance significantly expands our customers' options for
client/server financial and other commercial applications, and it enables
Lawson Software to take advantage of the ASK INGRES Intelligent Database
and its powerful distributed data management capabilities," said George
Kellar, marketing director, North America Operations for the ASK Group.

According to market analyst International Data Corporation, Lawson
Software is one of the top three vendors in the UNIX-based client/server
financial software market among Fortune 500 companies. IDC projects that
worldwide client/server financial software revenues will reach $1 billion by
1997, up from $70 million in 1992.

The application suites Lawson will interface with the ASK INGRES
Intelligent Database are:

- Lawson Accounting System: complete financial solutions consisting of
  General Ledger, Accounts Payable, Fixed Assets, Accounts Receivable,
  and Project Accounting.

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- <u>Lawson Distribution Management System</u>: solutions for the entire distribution process, from purchasing and order entry through inventory management, sales analysis, and receivables.

- <u>Lawson Human Resource System</u>: integrated solutions -- including Payroll, Personnel Administration, and Benefits applications -- geared to meet the needs of HR departments in diverse industries.

The Lawson Software suite of products will support the ASK INGRES Intelligent Database in HP-UX and IBM AIX operating environments during the second quarter of 1994. These products will be compatible with the ASK OpenINGRES Intelligent Database, which will be available in April.

The ASK Group also offers ASK MANMAN/X, a UNIX-based manufacturing business management software system, for use with the ASK INGRES Intelligent Database.

Lawson Software was founded in 1975 and is privately held with headquarters in Minneapolis and offices in Atlanta, Boston, Chicago, Dallas, London, Los Angeles, Madrid and New York. Lawson Software specializes in enterprise-wide, client/server accounting, human resources, distribution and materials management software applications for businesses worldwide.

The ASK Group, Inc., headquartered in Santa Clara, California, is a developer and integrator of strategic business software, providing corporations with the technologies and services to build, connect, manage and maintain information systems. With revenue of $426 million for fiscal year ended June 30, 1993, the company employs more than 2,300 employees in 82 offices who serve customers worldwide. The company's shares are traded publicly on the NASDAQ National Market System under the symbol ASKI.
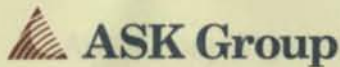

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FOR IMMEDIATE RELEASE

THE ASK GROUP INKS MULTIPLE PARTNER CONTRACTS

New channels program generates strategic agreements
with CODA, Computron, Lawson, Ross

SANTA CLARA, Calif., January 17, 1994 — The ASK Group, Inc., strategic business software developer and one of the largest independent software companies worldwide, today announced four major partner agreements for the ASK INGRES Intelligent Database system. The agreements, with such industry leaders as Ross Systems and Computron, Inc., enable the ASK Group to integrate a wide range of software products — from financial and accounting applications to human resource and workflow packages — with ASK INGRES for complete client/server business solutions.

The new partner contracts are the result of the ASK Group's enhanced channels program, announced in July, 1993. As part of the program, the company has:

- Reached an agreement with CODA Incorporated in which CODA will bundle the ASK INGRES Intelligent Database as part of its Open Accounting System.

- Signed a contract with Computron Technologies Corporation under which Computron will integrate its suite of financial, accounting, and workflow software applications with the ASK INGRES Intelligent Database.

- Inked an agreement with Lawson Software, in which Lawson will interface its client/server-based accounting, distribution and human resource application suites with the ASK INGRES Intelligent Database.

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- Signed an agreement with Ross Systems, Inc., to create a runtime interface between the ASK INGRES Intelligent Database and Ross' entire line of commercial client/server applications.

"These agreements expand our partners' share of the fast-growing markets for client/server financial applications," said George Kellar, marketing director, North America Operations for the ASK Group. "By tightly integrating the ASK INGRES database with their applications, these companies are enabling corporate customers to migrate their systems to client/server networks seamlessly and save time and costs in the process."

According to Forrester Research, revenues from turnkey business applications for client/server environments will grow to $6 billion in 1995, more than doubling the sales of database server and tools products alone.

ASK INGRES-compatible products from CODA, Computron and Ross Systems are available immediately. Lawson's ASK INGRES-compatible products will be available in the second quarter of 1994. All products resulting from these partnerships will be compatible with the forthcoming ASK OpenINGRES Intelligent Database, which will be available in April, 1994.

ASK Group channels program meets key VAR and integrator needs

Launched last summer as part of a broad-based effort to increase indirect sales, the ASK channels program features a dedicated staff of indirect account managers and engineers, a reengineered compensation strategy to encourage indirect sales, and a Global Assist program to enable ASK INGRES VARs, systems integrators and ISVs to address international opportunities in Europe, Japan and the Pacific Rim. The ASK Group has a strong presence in international markets, with approximately half of its revenues derived from overseas.

About ASK Group products

The ASK INGRES Intelligent Database and ASK Windows4GL application development tools have consistently led the industry in providing distributed

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information management capability. The ASK INGRES RDBMS server offers corporate MIS managers and systems integrators an intelligent database with entirely transparent distributed data capability. The ASK Windows4GL application development tool provides developers with advanced graphical, object-oriented fourth-generation language capability for building mission-critical applications. The ASK Group also offers ASK MANMAN/X, a UNIX-based manufacturing business management software system for use with the ASK INGRES Intelligent Database.

About the ASK Group

The ASK Group, Inc. is a developer and integrator of strategic business software, providing corporations with the technologies and services to build, connect, manage and maintain information systems. With revenues of $426 million for the fiscal year ended June 30, 1993, the company employs more than 2300 people in 82 offices who serve customers worldwide. The Company's shares are traded publicly on the NASDAQ National Market System under the symbol ASKI.

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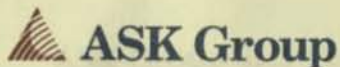
ASK Group

FOR IMMEDIATE RELEASE

THE ASK GROUP AND COMPUTRON
ANNOUNCE STRATEGIC PARTNERSHIP AGREEMENT

ALAMEDA, Calif., Jan. 17, 1994 -- The ASK Group, Inc.
(NASDAQ:ASKI), strategic business software developer and one of the largest
independent software companies worldwide, and Computron Technologies
Corporation today announced an agreement under which Computron will
integrate its suite of financial, accounting, and workflow software applications
with the ASK INGRES Intelligent Database.

The agreement provides for technical cooperation in the interfacing of
the two companies' products. This effort will benefit from Computron's
open, client/server computing architecture called N-dimensions. N-
dimensions is a foundation architecture which enables Computron
applications to run across a wide variety of databases, operating
environments, and hardware platforms. The integration of Computron's
software with a particular environment requires only the creation of an object
layer on top of the N-dimensions architecture.

The agreement also establishes a marketing partnership between the
two companies involving joint account calls, customer cross referrals,
cooperative participation at trade shows, and other collaborative sales,
marketing, and customer support activities.

"This agreement is geared to expanding both companies' share of the
fast-growing markets for client/server financial applications and workflow

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systems," said George Kellar, marketing director, North America Operations, for the ASK Group.

According to market researcher International Data Corporation, worldwide client/server financial software revenues will reach $1 billion by 1997, up from $70 million in 1992. And according to the Delphi Consulting Group, sales of workflow systems are growing by 35 percent annually and could reach more than $700 million in 1994.

Computron's software offerings cover the spectrum of financial applications, including general ledger, accounts payable and receivable, fixed asset management, purchase order/inventory, time and expense accounting management, and report and query tools. These products are used by more than 20 percent of the Fortune 1000 companies and half of the Big 6 accounting firms, as well as hundreds of other enterprises, including law and other professional services firms and government agencies.

Computron's EPIC/WF workflow management system provides easy-to-use, on-line customization tools that allow end-users to tailor and retailor their own workflow applications without programming. Using English-like routine rules and Soft Tools, non-technical users can interactively design and fine tune the workflow process to meet their special needs.

"An optimized interface to the ASK INGRES Intelligent Database gives our customers a powerful tool for converting data into truly useful information," said Adam Thier, manager of corporate marketing at Computron. "For example, our accounts payable solution linked with a database becomes far more than a system for producing checks from vouchers. It allows data to be stored for inquiry and reporting for budget reconciliations at cost centers throughout a company. And our workflow

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solutions will work with the relational database to produce and analyze data on productivity of the workflow process within a company. This data can help determine if workflow should be used in other areas of the company, and how best to implement it."

The link between Computron's financial suite and the ASK INGRES environment gives customers a new level of flexibility in managing their mission critical data. "For the first time, users will be able to access and organize data both through Computron's native facilities and those created with our tools, including the ASK Windows4GL rapid application development environment," said the ASK Group's Kellar.

The ASK INGRES versions of Computron's applications are available immediately for the HP-UX, IBM AIX, SunOS, and DEC Ultrix and VMS operating environments. These products will be compatible with the ASK OpenINGRES Intelligent Database, which will be available in April.

The ASK Group also offers ASK MANMAN/X, a UNIX-based manufacturing business management software system, for use with the ASK INGRES Intelligent Database. Computron's Financial suite of modules also has intelligent and powerful interfaces in order to be integrated with products such as ASK MANMAN/X.

Computron Technologies Corporation offers a mission-critical suite of image-enabled financial software, imaging/workflow management software, computer output to laser disk, online report distribution, archival systems, and inquiry systems. Computron is one of the top 100 independent software companies in the world, according to *Software Magazine*, with over 1,700 installations, including many Fortune 1,000 companies. Computron employs approximately 250 people worldwide and maintains a network of offices in major U.S. cities, as well as in Europe, Asia, and Australia.
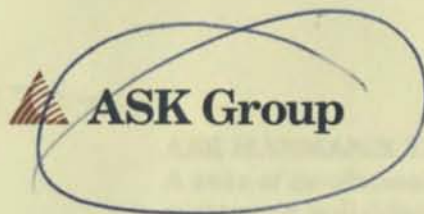
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Manufacturing Systems Product Facts

Business

The ASK Group Inc.'s Manufacturing Systems Product Unit, headquartered in Mountain View, Calif., provides comprehensive manufacturing business management systems to companies around the world. The company's software products are designed to help businesses streamline manufacturing operations, control costs, manage inventory, deliver products on time and operate more efficiently.

Market Positioning

With more than 20 years of experience, the ASK Group is a leader in manufacturing business management systems, providing customers with the most features within its product offerings. The ASK Group is the only business software supplier offering a framework for truly "open" solutions. The company's products work with multiple hardware platforms, operating systems environments and a variety of databases to offer customers the greatest choice. These products are available worldwide through the company's global sales, service and support network.

Product: ASK MANMAN/X

Released in October 1992, ASK MANMAN/X is the most functional, open manufacturing business management system sold and serviced worldwide, offering 27 integrated software modules. More than 134 licenses have been shipped since October 1992, representing at least 6,300 users. Ninety percent of sales have been to new ASK Group customers.

ASK MANMAN/X Supports

- Hardware Platforms: ASK MANMAN/X supports hardware from Hewlett-Packard Company, Digital Equipment Corporation, International Business Machines Corporation, and Sun Microsystems Computer Corporation.
- Databases: ASK INGRES Intelligent Database, Oracle, the ISAM file system.
- Operating Systems: HP-UX, MPE/ix, IBM-AIX, DEC OSF1, DEC Ultrix, SCO-Unix and Solaris.
- Multinational Versions: Available in French, German, and English, with Spanish, other European languages, and double-byte support for Asian languages scheduled for implementation soon. Country specific localizations support tax laws, reporting practices and methods of payment.

ASK MANMAN/X Tools

A suite of development tools enables easy customization of the application to suit a customer's individual business needs. ASK MANMAN/X Tools are open to interoperate with other tools, such as ASK Windows4GL, so that customers can integrate and develop applications complementary to ASK MANMAN/X.

Product: ASK MANMAN

First brought to market in 1974, ASK MANMAN is the leading manufacturing business management system for the HP 3000 and Digital's VAX and Alpha AXP computers, offering 20 integrated software modules. User requested enhancements are the focus of every new release. The product provides European community compliance features to support global business environments. More than 3,000 licenses have been shipped worldwide, representing in excess of 200,000 users.

Product: ASK SIM/400

Added to the ASK Group product family after the acquisition of Data 3 Systems in 1989, ASK SIM/400 is a customer-responsive manufacturing business management system for the IBM AS/400 full-range computer. Being customer-responsive means the product is designed and supported in a manner that ensures manufacturers can provide quality services and products to their customers. The ASK SIM/400 product family features the ASK SIM/Windows product for personal computers and AS/400 application integration.

The ASK SIM/400 product line offers 25 integrated modules, some of which include modules for manufacturing, financial, process, multi-manufacturing planning, electronic data interchange, bar code and sales order management. A key differentiator for the line is its Open Application Architecture (OAA). As a foundation, OAA ensures that any information-based business solution unique to a customer's need can be integrated with ASK SIM/400 regardless of the hardware platform or operating system. All products conform to IBM's Systems Application Architecture (SAA) Common User Access (CUA) standards.

More than 50 customers have been certified as Class A worldwide, signifying 95 to 100 percent performance in inventory management, on-time customer deliveries and other quality measurements. This success is in part due to the strong relationship the ASK Group continues to build with IBM as an IBM Business Partner and IBM Cooperative Software Provider. In 1993, the ASK Group was awarded IBM's Mark of Quality Bronze Medal for quality products and support services.

Product: ASK MAXCIM

Used by leading manufacturing companies, ASK MAXCIM is a cost-effective and user-friendly information management system that runs on Digital's VAX computers.

Modules
- Financial. As a simple, versatile solution, offering the benefits of on-line operation, the financial modules may be used individually or integrated with other modules to provide a comprehensive information management system.
- Sales and Marketing. Combines order management and sales analysis capabilities.
- Information Management. Supplies extensive data extraction and manipulation capabilities to focus on the necessary information critical to a company's strategic and operational success.

Service

The ASK Group offers comprehensive customer service programs worldwide. Providing customers with a choice, the company's extensive array of service options enables customers to select those that best meets their needs. The available services include assistance from customer response centers, product training classes, implementation consulting services, documentation, software upgrades and electronic customer support.

Service Programs
- ASK MANMAN/X: "ASK MANMAN/X Advantage"
- ASK MANMAN, ASK MAXCIM: "Warranty-Plus"
- ASK SIM 400: "Warranty Plus"
- ASK SIM 400: "ASKit" (electronic customer support service)

Strategic Partnerships

Both ASK MANMAN and ASK MANMAN/X are supported by more than 100 independent software vendors, systems integrators and consultants, including Electronic Data Systems (a division of General Motors), CARP Systems and Ernst & Young. Strategic partners for the MANMAN line include H-P, IBM , Digital and Oracle Corp.

The Company

The ASK Group, Inc. is a supplier and integrator of strategic business software, which includes the backbone database management system, application development tools, connectivity products, packaged applications and knowledge services that allow corporations to build, connect, manage and maintain information systems. As one of the largest independent software companies, the ASK Group has 82 sales offices, more than 2,300 employees and worldwide representation within 53 countries.

Company History

The company started as ASK Computer Systems in 1972 by Sandra L. Kurtzig, the founder and recently retired chairman of the board. With $2,000 in her pocket and a spare room in her home, she launched what today is a thriving corporation with revenue of $426 million for fiscal year ended June 30, 1993.

In 1974, ASK pioneered the first standard material requirement planning (MRP) software product for minicomputers. Known as ASK MANMAN, it was the company's first product and, to this day, has maintained an installed base of more than 200,000 end users. Since then the ASK Group has made two successful company acquisitions. In 1989, Data 3 Systems was purchased, making the company one of the top 10 MRP suppliers for IBM AS/400 computers. Then a year later, the company acquired Ingres Corporation, which evolved the firm from a supplier of manufacturing systems software to a broad-based supplier of strategic business software.

As part of the company's "open" business strategy implemented this year, ASK Computer Systems and the other acquired companies now fall under the ASK Group umbrella.

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Database and Connectivity Product Facts

Business

The ASK Group, Inc.'s Database and Connectivity Product Unit, located in Alameda, Calif., provides a family of products that streamlines the management and access of the ever-increasing amount of enterprisewide information that is critical to running a business. Called ASK OpenINGRES, this product family includes a core relational database management system (RDBMS) and modules that provide connectivity solutions.

More than 1,000,000 end users in many industries, including finance, government, health care, higher education, manufacturing, transportation, retail and telecommunications, utilize ASK OpenINGRES information management systems.

Market Positioning

The ASK Group is the acknowledged technology leader in the RDBMS field and has been since the introduction of the first database product more than 10 years ago. Since 1980, the database and connectivity group has been committed to producing highly evolved, technologically superior RDBMS systems. The company is recognized as having superior RDBMS architecture, unique RDBMS knowledge and management functions and unsurpassed transparent distributed processing capabilities.

Technology Firsts

1983 First client/server database
1986 First database gateway
1987 First transparent distributed database
1988 First UNIX database to break 100 transactions per second
1989 First intelligent database
1990 First two-phase commit in a portable RDBMS
1992 First SQL-based event alerters
1992 First RDBMS simultaneously available across most popular hardware platforms
1993 First Open Database Connectivity (ODBC) driver from RDBMS supplier

The ASK Group is the only business software supplier offering a framework for truly "open" solutions. As one of the largest independent software companies worldwide, the ASK Group goes a step beyond being a software developer and also acts as a software integrator. Taking an open approach to doing business, the ASK Group partners with customers to integrate and service all software products, including those of third-party suppliers. Taking an open approach to software, the ASK Group's products operate with all major hardware and operating systems

environments and a variety of databases, protecting customers' existing data and systems and offering a choice for future enhancements.

Product Line: ASK OpenINGRES

The ASK OpenINGRES family of products is a next-generation relational database system that is based on the ASK OpenINGRES Intelligent Database and its accompanying portfolio of core capabilities, extensions and connectivity products. The first of its kind, the ASK OpenINGRES Intelligent Database is the only RDBMS to manage data "intelligently," mirroring the way an organization actually works. It allows customers to model their operations in the database directly by managing not only conventional data, but knowledge (or business policies and procedures) and objects (business-specific data types and operators) as well. With these powerful features, programmer productivity and data integrity are increased simultaneously, improving overall system performance.

Based on the company's proven intelligent RDBMS, the first release of the ASK OpenINGRES family of products features new and significantly enhanced levels of functionality for production environments, from the individual user to the enterprise to the community. The core database now includes new functions for installing and automatically configuring the RDBMS for specific enterprise needs, while also allowing users to monitor and manage database activity "on-line" from anywhere within an organization. It features an open database architecture that conforms to industry standards and government requirements, providing the highest levels of reliability and data security.

The open connectivity products from the ASK Group were designed from the start as a true distributed database system based on client/server architecture, as opposed to other vendors' offerings of separate and often incompatible products. The ultimate result for end users is the entire system works together as a single, unified system, enabling applications to run without change across multiple networks, machine architectures, database managers (relational and non-relational) and distributed single-point data sources. Additionally, the ASK OpenINGRES product family can help end users migrate from a proprietary mainframe environment to a client/server environment.

Enterprise access products offer transparent access to data stored in other vendors' databases using industry-standard SQL and permitting easy access and manipulation of all existing data. Gateway products ensure connectivity with: International Business Machines (IBM) Corp,'s CICS/VSAM, IMS and DB2 databases, Digital Equipment Corp.'s RMS and Rdb databases and Hewlett-Packard's ALLBASE/SQL on HP-UX and MPE/XL.

Another key element of the company's connectivity product strategy includes Open Database Connectivity (ODBC) compatibility, supporting Microsoft's ODBC interface. Any ODBC-compliant application can access ASK INGRES products and, with an ASK INGRES gateway, can also access data in legacy systems.

Desktop compatibility is an important element of the database and connectivity product strategy. Specific product versions enable DOS, OS/2, UNIX and Macintosh desktop computers to access ASK OpenINGRES running on host computers. Consistent with the company's open software commitment, the ASK Group has ASK OpenINGRES servers for Novell NetWare, OS/2, SCO UNIX, UNIXware, and Windows NT. Through ASK OpenINGRES connectivity software, the company's

database products can be accessed by clients on most desktop platforms, including MS-DOS and MS-Windows.

Service

The ASK Group total support solutions – technical support, education and consulting services – ensure that customers' applications are developed and deployed successfully, and keep systems running at peak efficiency. All services are designed to be flexible to allow for customized packages, ranging from the basic services of on-line technical support and training to the complete management of all or part of a project's installation.

The Company

The ASK Group, Inc. is the leading developer and integrator of strategic business software, which includes the backbone database management system, application development tools, connectivity products, packaged applications and knowledge services that allow corporations to build, connect, manage and maintain information systems. The company has 82 sales offices, more than 2,300 employees and worldwide representation within 53 countries.

Company History

The Database and Connectivity Product Unit of the ASK Group began in 1980 as Relational Technology, Inc., which later became Ingres Corporation. Ingres founders Michael Stonebraker and Eugene Wong, recognizing both the advantages of RDBMS and the potential business opportunity, became pioneers in early RDBMS development, creating a company which was from the outset the RDBMS market and technology leader.

Ingres was acquired in 1990 by ASK Computer Systems, a company that also pioneered the first standard material requirements planning (MRP) software product for minicomputers. The merging of these two companies evolved ASK from being a leading supplier of manufacturing business management systems software to a broad-based developer and integrator of strategic business software.

ASK Computer Systems and Ingres now fall under the ASK Group umbrella. The combined resources are defined by three product units for database and connectivity, development tools and manufacturing systems.

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Development Tools Product Facts

Business

The ASK Group, Inc.'s Development Tools Product Unit, located in Alameda, Calif., provides powerful application development tools to help customers rapidly build and refine software applications for use in client/server environments throughout the enterprise.

More than 500,000 client/server application customers use ASK Group tools. Professional developers and end users utilizing the company's tools span a variety of industry segments, including financial, government, health care, higher education, manufacturing, transportation, retail and telecommunications.

In March 1993, the ASK Group created a separate tools product group as a spin-off of the former Ingres operation. The new unit was given the charter of focusing on open tools development, designing and marketing the next-generation tools application development environment.

Market Positioning

The ASK Group has a history as the development tools industry's technology leader, bringing to market technically superior products for more than 10 years.

Technology Firsts

1984 First client/server 4GL tool

1985 First 4GL integrated with database management system

1989 First object-oriented 4GL

1990 First object-oriented 4GL environment available on popular hardware platforms

1990 First RDBMS 4GL generator for creating complex character-based systems

1991 First 4GL code generator for production systems

1992 First object-oriented 4GL on Windows, Motif, Presentation Manager

1993 First rapid object application development environment

The ASK Group is the only business software supplier offering a framework for truly "open" solutions. As one of the largest independent software companies worldwide, the ASK Group goes a step beyond being a software developer and also acts as a software integrator. Taking an open approach to doing business, the ASK Group partners with customers to integrate and service all software products, including those of third-party suppliers. Taking an open approach to software, the ASK Group's products operate with all major hardware and operating systems

environments and a variety of databases, protecting customers' existing data and systems, and offering a choice for future enhancements.

Development Environment: ASK OpenROAD

Introduced in October 1993, the ASK OpenROAD family of application development tools represents a new approach to software development. OpenROAD, which stands for open Rapid Object Application Development, is based on a philosophy of building applications from existing components using the highest-level development language available and allowing the generation of dynamic enterprise applications without writing software code. This empowers developers and end users to achieve as much as a 10-fold productivity improvement over current methods and to implement large-scale systems at speeds inconceivable even a short time ago.

Designed with input from hundreds of developers, value-added resellers, systems integrators and end users, this environment provides the overall strategic framework for the company's future and next-generation products from the Development Tools Product Unit. ASK OpenROAD combines the modeling power of CASE technology, the intuitive style of graphical user interface (GUI)-based visual tools and the flexibility of a 4GL into one single environment. Additionally, ASK OpenROAD is differentiated by the fact that it is "open," meaning customers are assured the ability to integrate systems with current and future products that conform to accepted industry standards, including databases from other vendors.

ASK OpenROAD Supports:

Operating Systems: Microsoft Windows 3.1 and Windows NT, Apple Macintosh, IBM's OS/2, UNIX , Digital Equipment Corporation's Open VMS
Relational Databases: ASK OpenINGRES Intelligent Database, Oracle, Sybase, Informix, IBM DB2, Digital's RdB
Non-Relational Databases: IBM IMS, Hewlett-Packard (H-P) Allbase
Major Microprocessor Architectures: Intel 80x86/Pentium, SPARC, RS/6000, HP/PA, Alpha, Motorola
Transaction Processing Monitors: such as Novell's Tuxedo
Tools: CASE, 3GL, 4GL, visual interfaces, open interface for object exchange between 4GL and 3GL applications

Product: ASK Windows4GL

At the foundation of the ASK OpenROAD environment is the company's 4GL product. Introduced in 1989, it set the standard for GUI application development and was the first object-oriented 4GL to market. Now called ASK Windows4GL, this product is used by customers to develop and test multiple-window applications up to 10 times faster than programming with conventional tools running in C, C++ or Smalltalk. ASK Windows4GL-developed applications are portable across multiple environments, taking on the look and feel of whatever window manager the user is running without requiring code changes.

In 1993, ASK Windows4GL 3.0 was introduced as the first in a family of ASK OpenROAD products, including features not available from other development tools vendors:
√ 10 times faster programming speed over current methods

√ support for the greatest variety of hardware platforms and operating system
environments, including recently-announced custom drivers for Sybase and
Oracle, optional support for Novell's Tuxedo transaction processing monitor and an
interface for object exchange between 4GL and 4GL environments

√ automatic worldwide distribution of applications and reconciliation of changes
for true, enterprise-wide computing

√ capability to build custom class libraries from new and now even existing
sources

Product: ASK Vision

ASK Vision is the industry's first application code generator to combine the
productivity of a 4GL, the production power of a 3GL and an advanced user interface
to automatically generate complex, character-based business applications.
Through its unique combination of visual application design and application
generation capabilities, ASK Vision reduces the time needed for both application
development and maintenance over any other product currently available.

Service

The ASK Group total support solutions – technical support, education and consulting
services – ensure that customers' applications are developed and deployed
successfully, and keep systems running at peak efficiency. All services are
designed to be flexible to allow for customized packages, ranging from the basic
services of on-line technical support and training to the complete management of all
or part of a project's installation.

The Company

The ASK Group, Inc. is the leading supplier and integrator of strategic business
software, which includes the backbone database management system, application
development tools, connectivity products, packaged applications and knowledge
services that allow corporations to build, connect, manage and maintain
information systems. The company has 82 sales offices, more than 2,300 employees
and worldwide representation within 53 countries.

Company History

The ASK Group's Development Tools Product Unit began as part of Ingres
Corporation. Founded in 1980 by database gurus Michael Stonebraker and Eugene
Wong, Ingres led the industry with technically advanced products in the
development tools arena as well as the RDBMS field.

Ingres was acquired in 1990 by ASK Computer Systems, a company that pioneered
the first standard material requirements planning (MRP) software product for
minicomputers. The merging of these two companies evolved ASK from being a
leading supplier of manufacturing business management systems software to a
broad-based developer and integrator of strategic business software.

ASK Computer Systems and Ingres now fall under the ASK Group umbrella.

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ASK Group

The ASK Group, Inc.
Press Backgrounder
November, 1993

Contact:
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Executive Overview

The ASK Group, Inc. is one of the largest independent software companies worldwide with revenue of $426 million for fiscal year ended June 30, 1993. The company was originally founded in 1972 as ASK Computer Systems, a developer of manufacturing business management application software. Through a series of successful acquisitions from 1987-1990, the ASK Group has evolved to become a broad-based developer and integrator of strategic business software, providing corporations with the technologies and services to build, connect, manage and maintain information systems.

As a developer of software products, the ASK Group is the industry's technology leader across all of the company's product categories. The ASK Group is recognized as having technically superior relational database management system (RDBMS) architecture, application development tools, and manufacturing management system architecture, as well as unique RDBMS knowledge and management functions, and unsurpassed distributed processing capabilities. The ASK Group's mission is to provide the best open software and services so customers can be increasingly productive and competitive through the enhanced utilization of information management systems.

Within the information technology industry, the software market is the highest growth segment. The RDBMS and associated tools and services market grew an estimated 24 percent in 1992. Comparable growth over the next several years is expected by industry analysts.

The ASK Group is the ONLY software supplier offering a framework for truly OPEN solutions. The company goes a step beyond being a software developer and also acts as a software integrator. Taking an open approach to doing business, the ASK Group partners with customers to integrate and service not only its own products, but those from other companies – even competitors. Taking an open approach to software, the ASK Group's products operate with all major hardware and operating systems environments and a variety of databases, protecting a customer's existing data and systems, and offering a choice for future enhancements.

The ASK Group is in the enviable position of having a revenue stream that is globally balanced. International markets represent 51 percent of the company's total revenue, and more than 65 percent of software license and service revenue for its RDBMS and tools products. With 82 sales offices and many international distributor affiliates and distributorships, the ASK Group has a presence within 53 countries.

An MIS Dilemma

Although a profusion of hardware technologies and software products are available today, corporations are faced with obstacles that inhibit the complete access and sharing of information from one environment to the next.

Hardware and software from multiple vendors are often not interoperable. Client/server systems may not be effectively tapping into the collection of legacy data stored within the mainframes at the top. Desktop users, who are becoming more mobile, are placing new demands on client/server systems by using notebook computers, fax modems and hand-held devices, which require more complex data types and highly-encrypted formats for the transmission of information. And enterprises are needing to safely and reliably manage larger and larger amounts of data, and make that data accessible to more and more users.

Despite hardware and software advances through the years, corporate MIS managers still do not have the one, definitive solution for true enterprise-wide computing.

Software: The Most Important Decision

Software is the most important and strategic decision corporations can make today to handle the current needs of their company-wide information systems. More specifically, "open" software can play an integral role in the organization and integration of corporation's disparate hardware and software resources. Not unrelated, the software business is the highest growth segment of the information technology industry.

According to International Data Corporation (IDC), the market for relational database management systems (RDBMS) is expected to grow more than 39 percent per year through 1997, with the "open" application development tools growth to average 37 percent during the same period. Additionally, the industry research firm estimates the market for manufacturing business management systems software and services -- including "open" or UNIX manufacturing applications which take advantage of RDBMS and client/server computing environments -- will grow at a rate of more than 20 percent annually through 1997.

Customers Demand A Solution

Customers are no longer willing to be driven by proprietary hardware requirements or to buy technology for its own sake. Real, tangible business solutions are needed to disentangle and unite the potpourri of systems scattered throughout the offices of the world's leading corporations. Customers are abandoning the notion that hardware will lead their corporate computing environments in the forward-moving direction and are placing new hope in software to solve their corporation's MIS challenges.

Based on experiences of the past, customers have more stringent requirements for their future software considerations, which includes the following:

Vendor Independence to provide customers with a choice that does not lock them into one vendor for their entire MIS solution. This is especially true in manufacturing environments as more manufacturing customers appreciate the synergy which can result when automating more than the shop floor.

Investment Protection to ensure new software products interoperate well with the systems already in place, safeguarding current investments and enabling migrations to new solutions when desired.

Solutions with a Future so customers are not making a choice today that they will have to abandon in two or three years.

Smooth Product Integration to allow customers to add the best of newly available products and technologies into their environments.

World-Class Products with the appropriate technological innovations to solve their business needs. For example, the dynamic environments within today's organizations require continual business process re-engineering, creating one of the most critical information processing challenges. As a result, customers are always looking for the fastest products to rapidly implement new custom software applications and continuously refine existing ones.

Individually Tailored Solutions to assist those companies moving to decentralized, distributed, networked client/server systems, since a standard configuration or architecture does not exist.

Ability to Manage Large Amounts of Data to allow organizations to reliably and progressively manage the proliferation of data within their systems and make it accessible to more and more users.

Organization-Wide Data Access to offer all departments and end users increased availability to critical information within organizations.

Worldwide Integration of information systems to give users equal access and data management capabilities to locations around the globe.

Worldwide Services to provide large, multinational organizations with the required technical expertise, training and support as conveniently as possible.

Software Trends Help Customers Get What They Want

Not surprisingly, current trends in the industry mirror what customers say they need. Sales of software based on proprietary systems are declining rapidly. The industry is moving toward open systems, in search of a solution to the hardware and software interoperability problems within organizations. Also an acceptance of UNIX is being seen in the manufacturing sector. Manufacturers have been among the most aggressive in using information technology in production automation and product design and test. Now with the availability of UNIX manufacturing management software applications, these customers can apply new information technology in their core business management systems as well.

An abundance of new technologies exists, especially in the area of application development tools. The most significant new technologies focus on the rapid development of custom application software. It is the application software itself that allows a user to speak to a particular business need. It is the rapid development, as well as the easy maintenance and update of these applications, that has been a particular challenge for end users who develop their own applications or modify a vendor's standard application. Technological innovation in the tools arena is the type of product effort which delivers the world-class products customers are eagerly awaiting.

Software is leading the effort to "rightsize" the available technology resources within corporations. Rightsizing refers to the industry migration trend down from mainframe environments. Corporations cannot afford to discard their mainframes yet they also do not want to develop new strategic applications for them. Customers need custom solutions to help facilitate the rightsizing process. Customers also need help managing the expanded volumes of data which is becoming available through rightsizing and getting that information to all worldwide users.

Market Need: An "Open" Software Developer That Integrates

Customers know what they want. However customers historically were not able to find one company that could develop technologically superior products, deliver open product solutions and have the capability to integrate its own products and accommodate the integration of all data resources available in the enterprise information system.

A void exists for such a leading-edge software developer and software-oriented integrator – a company whose primary business focus is software development and whose business vision is open. With an open product portfolio and open approach, the ASK Group fills this void by providing a combination of software technology, integration and services beyond what is offered within the marketplace today.

The ASK Group: The Industry's Best Software Resource

The ASK Group is a developer and integrator of strategic business software – the software that organizations must have in order to run their businesses. More specifically, the ASK Group provides the technologies and services to build, connect, manage and maintain information systems. Strategic business software comprises:

• The backbone database system to "intelligently" manage data, knowledge and objects;
• Development tools products to build software applications rapidly;
• Connectivity products to allow data access and manipulation on multiple networks;
• Packaged applications for manufacturing, designed to help businesses streamline operations;
• Technical support, education and consulting services to ensure customers' maximum efficiency and productivity.

As shown in Diagram 1, these classes of software can be perceived as independent and interdependent components or layers in a strategic software and services "value chain."
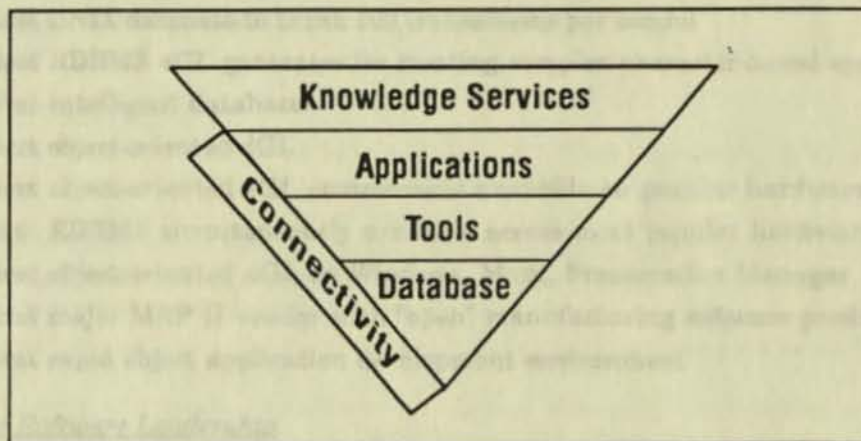
Diagram 1: The ASK Group is active at all levels of the strategic software and services value chain.

The ASK Group's Unique Differentiation

A Commitment to Open

The ASK Group is the only business software developer offering a framework for truly "open" solutions. This is not just marketing hyperbole. In addition to the company's commitment to providing open and interoperable products, the ASK Group goes a step beyond being a software developer and also acts as a software integrator. Taking an open approach to doing business, the ASK Group partners with customers to integrate and service all software products, even the competition's. Taking an open approach to software, the ASK Group's products operate with all major hardware and operating systems

environments and a variety of databases, protecting customers' existing data and systems, and offering a choice for future enhancements.

An Established Technology Leader

The ASK Group is the only company to have technology and service expertise with a variety of databases and tools, and a two decade history developing applications and delivering quality services.

The company has technology strengths in three critical areas: data management and connectivity, application development tools and packaged applications. The ASK Group is known within the industry as having technically superior products and a forward-looking technological vision. This is best demonstrated by the roster of technology firsts which have been achieved by the ASK Group through the years.

Significant Technology Firsts:

1974	First material requirements planning (MRP) software for mid-range computers
1981	First RDBMS manager with a statistics-based performance optimizer
1983	First client/server database
1984	First client/server 4GL tool
1985	First 4GL integrated with database management system
1986	First database gateway
1987	First transparent distributed database
1988	First UNIX database to break 100 transactions per second
1988	First RDBMS 4GL generator for creating complex character-based systems
1989	First intelligent database
1989	First object-oriented 4GL
1990	First object-oriented 4GL environment available on popular hardware platforms
1992	First RDBMS simultaneously available across most popular hardware platforms
1992	First object-oriented 4GL on Windows, Motif, Presentation Manager
1992	First major MRP II vendor with "open" manufacturing software product
1993	First rapid object application development environment

A History of Software Leadership

The ASK Group comprises a collection of companies with rich histories of technology prowess and industry longevity. Started in 1972 as ASK Computer Systems by Sandra L. Kurtzig, the company pioneered the first standard material requirements planning (MRP) software product for minicomputers. Kurtzig started this business from her home soon after graduating with a master's degree in aeronautical engineering from Stanford University. Her plan was to have a part-time business while starting a family. Although she had two sons, the business was never part-time.

Kurtzig sat at the helm of the company for 16 years as president and CEO. She led the company through significant corporate acquisitions that would evolve the company from the leading developer of manufacturing management application software to its current status as a broad-based developer of strategic business software. In 1987, the company acquired NCA Corporation for $43 million, making the ASK Group the largest MRP II supplier operating on Digital's VAX series. Two years later in 1989, Data 3 Systems was

acquired for $19 million, positioning the ASK Group as one of the top 10 MRP suppliers for the IBM AS/400 family of computers.

The following year, in 1990, Ingres Corporation was acquired for $112 million. By combining Ingres' information management technologies with ASK's application expertise, the company leveraged the strengths of both organizations. Because all application software for all industries, including the company's basis in manufacturing, is developed with database software and application development tools, ASK was already knowledgeable in this market as users and saw an enormous continuing market opportunity as a supplier.

Of the acquired companies, Ingres also brought with it a unique story. Ingres founders Michael Stonebraker and Eugene Wong, recognizing both the advantages of RDBMS and the potential business opportunity, became pioneers in early RDBMS developments. In 1980 they created a company, originally called Relational Technology Inc., which from the outset earned the reputation as being the RDBMS technology leader, as well as the initial market leader.

After the Ingres purchase, Kurtzig recruited Pier Carlo Falotti, president of the European operation of Digital Equipment Corporation, to head up the ASK Group in 1992. She retired as chairman in September 1993. Through Falotti's company re-engineering efforts, the ASK Group is organized around product lines under one corporate umbrella. The Ingres operation has been split in two, creating a Database and Connectivity Product Unit and a new Development Tools Product Unit. The ASK Computer Systems and Data 3 Systems operations have been consolidated into one Manufacturing Systems Product Unit, supplying manufacturing business management applications.

Worldwide Presence
The ASK Group employs more than 2,300 people in 82 offices worldwide. With the inclusion of its international affiliates and distributorships, the ASK Group is represented in a total of 53 countries. A little more than half of the company's overall business emanates from countries outside of North America as of the last full fiscal year close ending June 30, 1993. This percentage increases when looking specifically at the RDBMS and application development tools business. At least 65 percent of revenue from the aforementioned two product disciplines come from markets outside of North America.

Because economic and market conditions are forever changing in all of the major global communities, the ASK Group is in the enviable position of having a balanced worldwide presence. This balance allows the company to focus its resources in those market that are strongest and to pare investment where demand is weakest, allowing the ASK Group to maximize its growth and profit opportunities.

Financial Strength
The ASK Group is one of the world's largest independent software companies with $426 million in revenue for fiscal year ended June 30, 1993. Backed by two industry powerhouses, the ASK Group continues its relationships with a couple of strong investment partners – Hewlett-Packard (HP) and Electronic Data Systems (EDS), which own 9 and 18 percent of the company's stock, respectively.

Overall revenue has increased at a compound annual rate of 25 percent for the last five years. A conscious effort has been made over the last several years to resell less hardware and to focus primarily on the selling of software and software services-related offerings. The company's most recent year-end revenue reflects this change. Hardware resales accounted for 50 percent of revenue in 1990. By July 1993, the ASK Group could boast a mere 12 percent of overall revenue from hardware resales.

The ASK Group has a history of successfully managing debt and generating cash. The most recent example is with the $60 million of debt incurred in 1990 as part of the Ingres Corporation acquisition. As of July 1993, the debt has been reduced by 82 percent, ahead of the company's anticipated schedule.

Product Categories
Database and Connectivity
The ASK Group's Database and Connectivity Product Unit, located in Alameda, Calif., provides a family of intelligent relational database management products and services designed to help companies manage the ever-increasing amount of enterprise-wide data that is ultimately the critical component to business success. The unit's product offerings consist of two broad RDBMS and connectivity product lines: ASK INGRES and the new ASK OpenINGRES family.

The ASK OpenINGRES family of products is a next-generation RDBMS that is based on the ASK OpenINGRES Intelligent Database and its accompanying portfolio of core capabilities, extensions and connectivity products. The company pioneered the industry's first intelligent database, which is the first and only RDBMS of its kind to manage not just data, but knowledge (business rules) and objects (non-conventional data such as maps and pictures) as well. Operating on all of the most popular hardware platforms, the ASK OpenINGRES Intelligent Database enables customers to develop and operate "mission critical" information systems for the client/server environment.

The company also has unmatched experience in real-world customer application of distributed technology. As the pioneer in distributed technology, the ASK Group delivered the first product to fully implement distributed operations and distributed database administration, allowing customers to migrate from proprietary mainframe environments to client/server environments.

Competitors like Sybase, Informix and Oracle may have distributed features similar to the ASK Group's distributed database solutions, without the depth of functionality and the breadth of installed success stories. Also, unlike other vendors' offerings of separate and often incompatible products, the ASK Group's family of products was designed from the start as a true distributed database system based on client/server architecture.

Development Tools
The ASK Group's Development Tools Product Unit, located in Alameda, Calif., provides powerful application development tools to help customers rapidly build and refine software applications for use in client/server environments throughout the enterprise.

The ASK OpenROAD family of application development tools represents a new approach to software development. OpenROAD, which stands for Open Rapid Object Application Development, is based on a philosophy of building applications from existing components

using the highest-level development language available and allowing the generation of dynamic enterprise applications without writing software code. This allows developers and end users to achieve as much as a 10-fold productivity improvement over current methods and to implement large-scale systems at speeds inconceivable even a short time ago.

Industry influencers have been quoted as saying a powerful tools offering is the key to future growth for database vendors because a customer does not purchase just a RDBMS engine. Instead, a customer most likely purchases a suite of products, including the RDBMS, application development tools and connectivity products, with the intent to develop or adapt packaged applications internally. Or, as another example, the entire suite of products can help a customer "rightsize" the organization. A customer can use ASK Windows4GL or ASK Vision to develop an application that will run partially on a personal computer and partially on a server, while a transparent gateway allows the application to access the legacy data stored on the mainframe. In addition, this application can be built so that it is portable across multiple environments with no code changes.

The ASK Group is well-positioned to take advantage of current industry trends by having the most experience designing integrated environments from which end users and developers, from novices to sophisticated programmers, can build RDBMS applications. With more than 10 years of experience, the ASK Group is recognized as the technology leader in application development tools, delivering the first graphical, object-oriented fourth generation application development tool and the first application code generator for complex, legacy business applications.

Manufacturing Systems
The ASK Group's Manufacturing Systems Product Unit, headquartered in Mountain View, Calif., with a satellite operation in Santa Rosa, Calif., provides comprehensive manufacturing business management systems to companies around the world. The company's software products are designed to help businesses streamline manufacturing operations, control costs, manage inventory, deliver products on time and operate more efficiently.

Just as the company led the way for material requirements planning (MRP), it is at the forefront of a new class of manufacturing information technology which has been termed Enterprise Resource Planning (ERP). The ASK Group believes ERP will become an important technology for world-class companies. Manufacturers increasingly want information flow to link the entire enterprise from purchasing through manufacturing to distribution, creating single, global organizations which overcome the lack of integration caused by decentralization. ERP encompasses MRP II as its plant-level component and expands throughout the organization from there.

ASK MANMAN/X, the industry's most functional, open manufacturing business management system sold and serviced worldwide, is a step in the right direction toward ERP. As an open, UNIX-based information system, ASK MANMAN/X today supports all aspects of manufacturing, working with multiple hardware platforms, operating system environments and databases, and fulfilling the needs of multinational manufacturers. Because ASK MANMAN/X's foundation is open, the product supports other modules spanning the information processing needs of the various departments throughout the enterprise. As part of the company's long-term strategy, the ASK Group is likely to supplement its manufacturing applications with those for other vertical markets, either directly or through partnerships.

Added to the ASK Group product family after the acquisition of Data 3 Systems in 1989, ASK SIM/400 is a customer-responsive manufacturing business management system for the IBM AS/400 full-range computer. Being customer-responsive means the product is designed and supported in a manner that ensures manufacturers can provide quality services and products to their customers. Other proprietary products include ASK MAXCIM, a cost-effective and user-friendly information management system that runs on Digital's VAX computers, and ASK MANMAN, the leading manufacturing business management system for the HP 3000 and Digital's VAX and Alpha AXP computers.

Worldwide Distribution

In order to be more responsive to customer needs and directions, the ASK Group established a global sales and service organization in March 1993. This Worldwide Distribution Unit provides the company with a single entity equipped with the infrastructure to offer customers ASK Group products and products from other vendors. It consists of geographically-oriented sales and direct customer support organizations. Within each region, the sales force is divided into groups focused on product type which handle sales, local marketing and most customer service activities. The regions are, in turn, supported by a worldwide service and support business, whose principal function is to support the distribution business, including the development of service products, internal training and consulting services.

Worldwide Services

To help customers optimize their open software solutions and speed the return on investment, the ASK Group offers a worldwide portfolio of services designed to help businesses implement and maintain comprehensive, timely and cost-effective information systems. Currently, the company's team of more than 600 technical, consulting and training professional provide customer services. These services are divided into two categories. Support services cover all support and maintenance programs, including documentation. The ASK Group is at the forefront of offering innovative services options to its customers. For example, it was the first of the major software companies to offer its technical documentation on CD-ROM as well as "a la carte" service and warranty plans to customers. Professional services cover a broad range of specialized "knowledge" services, including educational programs and consulting. Together, these services support customers from initial installation and implementation through upgrades and migrations to new ASK Group products and releases.

Strategic Partnerships

The ASK Group works cooperatively with third party suppliers to support integrative options of the kind customers want and need. The ASK Group establishes significant relationships with key partners, comprising technology, marketing and distribution agreements. Value-added resellers, systems integrators and independent software vendors fall into this category, as well as those vendors, and even competitors, working in concert with the ASK Group's corporate or product development organizations.

In Summary

The ASK Group is a formidable entity whose strength as one company is greater than its divided and individual parts. As a renewed, single company, the ASK Group has the size, stability and strength – the critical mass – to be credible as one of the largest independent software companies in the world. The ASK Group's key differentiators speak to the company's ability to provide comprehensive, long-term solutions for customers, and these differentiators are plausible because of the product breadth, openness, expertise, experience and resources of the ASK Group as a whole. And in the final analysis, it is the dedication, technical expertise, skills and service-orientation of the ASK Group's people that is the real and lasting differentiator for the company.

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Today's Business Climate

Rapid Object
Application Development
for the Dynamic Enterprise

The ASK OpenROAD™ Family
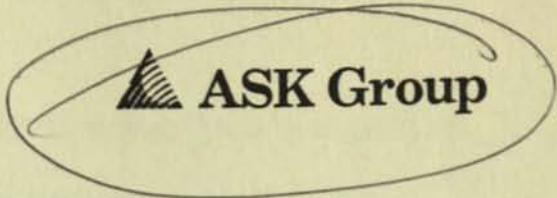
Today's Business Climate

Change dominates the business environment. The globalization of markets, the expansion of communications networks, and the increasing automation of business processes are examples of this change.

Change in the environment demands that the enterprise itself become dynamic. To be successful, organizations are exploring new ways to reduce time to market, increase productivity and expand their competitive advantage. Successful organizations are becoming "dynamic enterprises," using information technology as the basis for sustainable competitive advantage.

Organizations that are able to rapidly develop and enhance critical information systems can aggressively respond to the demands of the dynamic business environment. Many organizations have recognized this opportunity. These organizations are demanding state-of-the-art application development technology in order to seize this opportunity.

The ASK Group has opened a new chapter in application development, offering a rapid object application development environment, designed to meet the needs of dynamic enterprise applications developers.

Introducing ASK OpenROAD

In October 1993, the ASK Group unveiled ASK OpenROAD™, a family of products for Rapid Object Application Development of client/server systems. The design of the ASK OpenROAD system is based on the experiences of over 100,000 developers using ASK Group tools to develop client/server applications. The ASK Group also sought out the experiences of value-added resellers and systems integrators building client/server applications on a large scale. The result is a solution-oriented approach to developing open systems to enhance customer competitiveness.

> *"ASK OpenROAD is an ingenious blending of open systems, graphical user interface technology, model-based application development, object-orientation and distributed application management facilities."*

ASK OpenROAD goes beyond current application development technology in its ability to develop large-scale systems quickly, while permitting their evolution as user requirements dictate. ASK OpenROAD is an ingenious blending of open systems, graphical user interface technology, model-based application development, object-orientation and distributed application management facilities. ASK OpenROAD expands beyond the limitations of current visual, CASE, and 4GL-based systems in the ability to rapidly develop and enhance large-scale applications.

Emergence of the Dynamic Enterprise

Today, client/server applications are being developed all over the world. The vast majority of these applications target workgroup computing environments with relatively small development teams and fewer than 100 users.

These pilot systems have achieved impressive results. User organizations are reporting dramatic productivity improvements. Systems are being developed with a fraction of the computing investment required by the use of traditional hardware and software technology. On the basis of results experienced in these pilot projects, organizations are moving forward with far more ambitious plans for client/server systems.

Technology alone, however, does not determine the strategic value of an information system. The alignment of business function with application function determines that value. In an article that appeared in *Harvard Business Review*, Michael Porter of Harvard University and Victor Millar of Arthur Andersen & Co., stated that the information revolution is affecting competition in three vital ways:

It changes industry structure and, in so doing, alters the rules of competition.

It creates competitive advantage by giving companies new ways to outperform their rivals.

It spawns whole new businesses, often from within a company's existing operations.

"The more intertwined information systems become with strategic business objectives, the greater the need for those systems to be responsive to the dynamics of the business environment."

Altering the rules of competition, creating new ways to outperform rivals, spawning new businesses: it is this level of impact on the enterprise that marks the character of strategic information systems. The more intertwined information systems become with strategic business objectives, the greater the need for those systems to be responsive to the dynamics of the business environment. While client/server technology provides an architectural framework, the ability to rapidly develop and enhance applications determines how business and information systems are aligned.

A dynamic enterprise is one that is able to use information technology as a key success factor in its business. The success of these systems is measured by the results they deliver in support of overall business achievement. Examples of this alignment exist in virtually every industry: manufacturers dramatically reducing time to market for new products while increasing productivity; banks offering new products and services to customers and generating significant new revenue from these systems; governmental agencies offering taxpayers, in the face of tight budgets, new services for education or housing.

In this context, application development strategy must be viewed as the companion to business strategy. This view of development technology requires that organizations take a broader view than has been the case in early implementations of client/server systems. New demands are being placed on application developers in order to facilitate development of these systems, and this in turn places new demands on application development tools providers.

Application Developers Respond

In the face of new challenges posed by dynamic enterprise applications, developers have begun to respond. They are undertaking new projects using techniques previously found only on small-scale projects. The new techniques emphasize rapid development of new applications. They use a prototype and then evolve the prototype in a complete production application. Once developed, the production application is continuously improved and refined. This process is driven by user requirements and continues throughout the life of an application. Organizations that have taken this approach rely on productivity tools to facilitate the iterative development process.

"...development organizations following this type of approach are delivering applications to users in a fraction of the time required when using traditional methods."

The initial phase of development is usually a prototype of the users' application. The developers perform basic screen layout and simulate the function required by the user. They continue this prototyping until the desired capability is developed.

In the second stage the developer turns to the task of incorporating data integrity and business rules into the prototype. This ensures that the prototype is more than a user interface design tool, and begins its transition from prototype into functioning application. The core business and data integrity rules can reside in either the application program or the database system. The developer determines where to incorporate these functions.

Development, deployment, and testing of the application take place in the next stage. This includes development of the complete functionality required in the user application. The formal testing process includes sharing of new functionality with the user. Deployment of the application to the user takes place at the conclusion of this stage.

Enhancement and refinement of the application occurs in the fourth stage. In some cases, this results in new functionality being incorporated into the application. At other times, it means repeating the implementation of selected portions of the application. This stage may also include the addition of functions found in other tools or even in packaged software available to the development team.

Very often the fourth stage leads back to the beginning of the cycle. Developers use the new functionality as a prototype with the user before incorporating it into the application. This naturally restarts the cycle.

Not every development organization formally follows the four distinct stages outlined above. They may break out testing or deployment as separate stages. Regardless of the technique employed, development organizations following this type of approach are delivering applications to users in a fraction of the time required when using traditional methods.

Development Tools Requirements

Early experience in developing client/server applications has given organizations valuable insight into the benefits and challenges associated with rapid application development.

The benefits of rapid application development are universal, not limited to specific classes of developers, users, or applications. The degree to which every part of the business can be part of a dynamic environment determines the ability of the enterprise to use systems to improve their competitive position.

Early client/server experience has also highlighted the challenges associated with effective use of the technology on an enterprise-wide basis. While the iterative development approach yields applications much faster than traditional approaches, this does not come without a cost.

To date, client/server systems have been implemented in toolsets that significantly limit the flexibility and choice available to developers. Developers need to be able to exercise greater control over all aspects of the development process. This means not being restricted to a single platform, operating system, database, or even development methodology. Application development tools must offer a high degree of *flexibility and freedom of choice*.

Many tools permit developers to build prototypes quickly. Some of these tools are rooted in a character-based paradigm whereas the user might require the application on a graphical device. Some tools vendors have provided graphical frontware on their tools in response to this demand. The result, however, is that the user sees a system that is an abstraction of the business problem at hand. Users of these applications are required to learn the application's behavior and adapt that knowledge to the business problem. Users really need applications that offer a vivid rendering of their business problem and that can be immediately put into action. Application development tools must allow the developer to provide *immediate value for the user*.

"This means not being restricted to a single platform, operating system, database, or even development methodology."

Rapid application development tools have been primarily designed for small applications with tens of screens. Developers need to be able to generate systems requiring hundreds or even thousands of screens. Development on this scale requires more sophisticated development technology than simple screen painters and scripting languages. Application development tools must enable *rapid development of large-scale systems*.

Once developed, many early client/server applications are impossible to maintain. There is no easy way, for example, to modify all the locations within an application that use a particular field. Commonly used routines must be copied for use in multiple locations and no simple update mechanism exists, should a change take place. The result is that applications may be quickly developed, but poorly documented and all but impossible to refine or enhance. This limitation severely undermines the long-term value of an application. Application development tools must provide a *maximum return on software investment*.

Finally, in considering deployment of an application throughout an organization, it must be seen that early client/server development tools did not address a number of system management issues. One issue, for example is the logistics of ensuring that when an application is deployed to several hundred personal computers, each machine is running the latest version of the application. This issue is made vivid when a network failure occurs and users are unable to access the latest version of the application. When multiple developers share the same application, a similar problem can occur. In each of these cases, early tools have not assisted developers in meeting these challenges. Application development tools must *simplify application deployment and support enterprise wide*.

"ASK OpenROAD is a comprehensive rapid object application development system for enterprise applications"

The ASK OpenROAD Environment

ASK OpenROAD is designed to address the needs of developers of dynamic enterprise applications. ASK OpenROAD is a comprehensive rapid object application development system for enterprise applications, from prototype through implementation, extending to management of applications when deployed in an organization.

ASK OpenROAD Offers Flexibility and Freedom of Choice

ASK OpenROAD is distinguished by the fact that it is an *open applications environment*. This offers developers tremendous flexibility and freedom in the development of dynamic enterprise systems.

ASK OpenROAD permits development and deployment of applications that are *scalable from the department to the enterprise*. Developers are able to employ the technology best suited to address the business requirement. Applications that target decision support, for example, can employ gateways, while transaction-oriented systems can be deployed against transaction-processing monitors. In this way, applications can be scaled for use by tens to thousands of users without leaving the ASK OpenROAD environment.

ASK OpenROAD permits developers to build applications that are *portable across multiple environments with no code changes*. Portability extends to multiple hardware platforms, operating systems and window managers. This includes Windows 3.1, NT, OS/2, MacOS, UNIX, and OpenVMS operating systems. Applications are also portable across multiple windowing systems including Microsoft Windows, Macintosh, Presentation Manager, and OSF/Motif. ASK OpenROAD supports every major microprocessor architecture, including Intel 80x86 and Pentium, SPARC, RS/6000, HP/PA, Alpha, Motorola, and MIPS-based systems. In each case, an application can be developed in one environment and deployed in the next without coding changes.

ASK OpenROAD developers are able to develop applications that *interoperate with multiple tools and data sources*. Developers are able to employ CASE tools in all stages of application development. Applications can interoperate with multiple 4GL- and 3GL-based applications as well as include functionality based on visual programming tools. ASK OpenROAD applications can access data in a nearly unlimited variety of forms, including relational and non-relational systems and flat files. This includes the ASK INGRES Intelligent Database, SQLServer, Oracle, DB2, Rdb, Allbase as well as IMS, VSAM, RMS, and a variety of other systems. Developers are able to choose the combination of tools capability that best addresses the applications of the data source.

ASK OpenROAD permits developers to *incorporate existing applications into the environment*. Current ASK Vision applications can run under the control of an ASK OpenROAD-based application. In the future, existing applications and ASK OpenROAD applications will be able to share components and ultimately migrate entirely into an ASK OpenROAD-based system. Existing customer applications can interoperate and ultimately migrate into the ASK OpenROAD framework.

ASK OpenROAD Provides Immediate Value to the User

ASK OpenROAD employs a *dynamic visual interface* that allows developers to build applications that exhibit immediate value to the user. Applications are able to directly reflect the way the users see their business.

ASK OpenROAD allows developers to *depict business functions visually*. This permits developers to build applications that are intuitively understood by the user. Beyond basic graphical user interface capability, ASK OpenROAD applications equip the developer with the tools to visually represent the customer's business environment. In an inventory-control application, for example, an application could present the user with a pictorial listing of parts on hand. By clicking on one picture, the application could pinpoint its warehouse location and present an image of the facility, highlighting its whereabouts. In this example, the user requires almost no training in order to begin using the inventory control system.

ASK OpenROAD-based applications are able to *dynamically adapt the interface to meet user requirements*. All presentation of the application's function to the user is under the complete control of the developer. User-interface elements can be dynamically changed at run time, based on a variety of criteria, including user input, database information changes, an external event, or any number of factors. In the inventory-control model, above, for example, the purchasing department could have bought a new line of products. The parts listing in the inventory control system would automatically reflect the new products and assign them a warehouse location. Users in the warehouse would simply see these new elements the next time the application was run, with no disruption to their work.

ASK OpenROAD applications *automatically employ native look and feel of the windowing system*. This capability is of particular importance because users may be running packaged or custom applications in addition to the ASK OpenROAD-based application. Because ASK OpenROAD applications automatically adopt the native look and feel, users are able to move freely between applications without inconsistency in the style of the user interface. Again, there is no disruption in the user's work.

ASK OpenROAD Enables Rapid Development of Large-Scale Systems

ASK OpenROAD employs *model-based application generation* technology. This allows developers to build, enhance, and refine large-scale systems in a time frame not possible with language- or methodology-based toolsets.

ASK OpenROAD automatically *incorporates business and data integrity rules* into applications without requiring the developer to write code. Developers are able to incorporate business and data integrity rules into the data model on which applications are based. In this way, all applications that include the data model incorporate this functionality automatically. This dramatically reduces the time and effort required to develop sophisticated systems.

ASK OpenROAD *automatically enforces standard coding practices* for all applications developed in the environment. ASK OpenROAD includes templates that underlie the development process and permit the development environment to be highly customizable. Developers can incorporate visual as well as functional attributes of applications within the templates. A common application of templates is in the adoption of styleguide standards within an organization. An organization may wish to specify that the company logo appear in a certain location on each screen and that each screen be exited by pressing a red button in the lower left hand corner. A template could be defined to capture this standard and all developers would automatically adopt this style for their components.

ASK OpenROAD *permits manual modification of generated components* so that functionality can be extended or refined within generated applications. After an application has been generated, a developer may wish to add custom functionality. This often occurs in response to a change in a user requirement. ASK OpenROAD applications can be manually modified and extended using either 4GL or 3GL routines. The customizability on the front end of the development process combined with the extensibility of the completed application provides developers with tremendous power in the ASK OpenROAD environment.

ASK OpenROAD *automatically reconciles changes* made to the underlying model or templates, even when manual modifications have taken place. Some application development tools permit modification of generated components, but from that point on require developers to work only in manual mode. ASK OpenROAD applications can include both automatically generated portions and manually customized portions of a component. Should a change occur to the data model or a template, the application can be regenerated without overwriting the manually added elements.

ASK OpenROAD Provides Maximum Return On Software Investment

ASK OpenROAD is based on an *object-oriented architecture* in order to maximize an enterprise's return on its software investment. Organizations are able to achieve a high return on investment in both development and maintenance of applications.

ASK OpenROAD provides developers the ability to *define class libraries in object-oriented 4GL*. One of the greatest productivity benefits of ASK OpenROAD is that all functionality is accessible from an object-oriented 4GL. Unlike 3GL-based tools that employ C++ or Smalltalk, construction of objects in 4GL is quick and easy. The ability to create user class objects means that under almost no circumstance do developers have to exit to a 3GL to obtain desired functionality.

ASK OpenROAD developers can *create objects during development or at run time*. The ability to create user classes in a object-oriented 4GL is made all the more powerful by ASK OpenROAD's ability to permit creation to take place during development or run time. This further extends the dynamic capabilities of the user's application. Bill-of-materials, for example, could be constructed using a class library built as the user is defining the materials list. As production steps are reorganized or changed, the class hierarchy could be dynamically modified to reflect these changes. This is either impossible or extremely difficult with lower-level language development tools.

ASK OpenROAD provides the ability to *reuse components or complete applications*. Once class libraries have been defined, they can be stored in an Application Library. The library can include components or complete applications. Developers are able to access the library from anywhere in a network to reuse components they might require. This gives developers access to a powerful resource of well-documented and tested objects that can be easily included in their application

ASK OpenROAD developers can *obtain objects in-house or through third parties*. Given the power of the Application Library, organizations can formalize their in-house development efforts and build class libraries of components that are of use throughout the enterprise. The ASK Group is working with third-party developers all around the world to build class libraries targeted at common needs, such as style guides, accounting routines, tax tables, and other functions as well as at complete applications.

ASK OpenROAD Ensures Easy Application Deployment and Support Enterprise Wide

ASK OpenROAD includes extensive capabilities for *distributed application management* of enterprise systems. This is critical to ensuring easy deployment and support of applications throughout an enterprise.

ASK OpenROAD provides developers with the ability to *distribute code automatically* throughout an enterprise. All components of an ASK OpenROAD application are stored within a data dictionary. The data dictionary is itself a relational database. Any user on a network who has access to the server where the application resides is able to access the data dictionary. When used in concert with the replication capabilities of the database system, the dictionary can be distributed to any number of servers. This ensures the availability of an application should a single server go down. Also, network traffic is minimized because the source components of the application can be located close to the user.

ASK OpenROAD *automatically synchronizes the run-time image* of applications in order to ensure that users are running its most current version. At run time, the developer can require an ASK OpenROAD application to check itself against the master copy of the source code in order to ensure it is current. An application can automatically refresh itself to the present version. This greatly simplifies deployment of applications where hundreds or thousands of client machines might be involved.

ASK OpenROAD provides developers with the ability to *control multiple versions* of an application and its components. The application manager provides version control capabilities that permit developers to track individual components of an application. This gives developers the tool they need to track revisions to applications throughout the development cycle.

ASK OpenROAD automatically *coordinates multiple developers at multiple sites* working on the same or related applications. Developers can work collaboratively on the same application without the concern of overwriting one another's work. Component check-in–check-out capability is provided along with the ability to save private copies of components a developer might want to save for continuation the next day, or if interrupted for some reason. Developers at remote sites could also have their work periodically updated by the application manager.
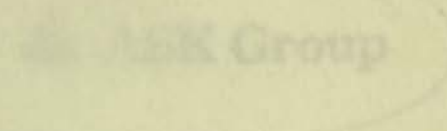
ASK OpenROAD Delivers Enterprise Applications Faster

This unique combination of capabilities establishes ASK OpenROAD as the leading choice for development organizations that view information systems as a strategic asset on which to build a competitive advantage.

ASK OpenROAD Features:	ASK OpenROAD Benefits:
Open application environment	Flexibility and freedom of choice
Dynamic visual interface	Immediate value to users
Model-based development	Rapid development of large-scale systems
Object-oriented architecture	Maximum return on software investment
Distributed application management	Easy deployment and support of applications

The ASK OpenROAD system's blend of leading edge technologies applied to solving immediate challenges faced by software developers is unique. ASK OpenROAD provides organizations with the power needed to succeed in a dynamic business environment.

ASK OpenROAD™
RDBMS Development Tools

ASK Group

	CDE Oracle	Informix 4GL Informix	Build Momentum Sybase	Power Builder Powersoft	OpenROAD
Open application environment	Y	N	N	N	Y
Dynamic visual interface	N	N	Y	N	Y
Model-based development	P	N	N	N	Y
Object-oriented architecture	N	N	Y	Y	Y
Distributed application management	P	N	N	N	Y
Open application environment					
Scales from department to enterprise	Y	N	N	N	Y
Ports across environments with no code changes	Y	N	N	N	Y
Interoperates with multiple tools and data sources	Gateway	P	Gateway	Y	Custom
Allows migration of existing applications	N	P	Y	N/A	Y
Dynamic visual interface					
Depicts business functions visually	N	N	Y	N	Y
Dynamically adapts interface to use need	N	N	Y	N	Y
Employs native look and feel	Y	Y	Y	Y	Y
Model-based application generation					
Automatically incorporates business rules	Y	N	N	P	Y
Automatically enforces standard coding practices	Y	N	N	P	Y
Permits manual modification of generated component	Y	N	N	Y	Y
Automatically reconciles changes	N	N	N	N	Y
Object-oriented architecture					
Defines class libraries in object-oriented 4GL	N	N	N	Y	Y
Creates objects at runtime or during development	N	N	P	Y	Y
Reuses components or complete applications	N	N	Y	Y	Y
Obtains objects in-house or through 3rd parties	N	N	Y	Y	Y
Distributed application management					
Distributes code automatically	N	N	N	N	Y
Synchronizes runtime images	N	N	N	N	Y
Controls multiple versions	Y	Y	Y	Y	Y
Coordinates multiple developers, sites	Y	N	Y	N	Y

Legend
Y   Yes
N   No
P   Partial

ASK Windows4GL 3.0 Preliminary Fact Sheet

Today's client/server applications are moving from workgroup computing environments to enterprise-wide associations. This transition means that today, a competitive client/server application development tool must incorporate not only the features that made the initial enterprise applications on the workgroup successful, but must also include the features required by the enterprise. Successful application development features include:

- Rapid development
- Graphical user interface
- Easy deployment
- Incorporation of business rules and data integrity
- Open architecture for freedom, flexibility, and ability to extend functionality to support production environments
- Enhancement and refinement of deployed applications

ASK Windows4GL 3.0 is designed to address the needs of dynamic enterprise applications, incorporating the features of client/server applications. ASK Windows4GL 3.0 provides the optimal solution for application development, allowing projects either to start small and grow to enterprise-wide deployment, or to begin as an enterprise development and deployment effort.

ASK Windows4GL 3.0

The ASK OpenROAD™ Family

ASK Windows4GL 3.0 Application Development

ASK Windows4GL provides the application developer with a visual interface. Working with this interface, the application developer automatically employs the native look and feel of the windowing system. The developer need never interact directly with the toolkit of the resident system. Simply by using a mouse to manipulate the screen, a developer creates sophisticated applications quickly. And the new application's interface can dynamically adapt to meet user requirements. Now, in addition to the extensive new capabilities of the visual editor, significant enhancements have been made to the object-oriented 4GL and interactive debugger to support more rapid application development.

Visual Editor Features

- Interactively places fields, buttons, bitmaps, and other elements
- Defines dialog boxes
- Combines elements into table fields; nests table fields to any depth
- Encapsulates 4GL into any visual element
- Utilizes native toolkit elements, such as text, button fields, check boxes, radio buttons, list boxes, bar fields, and geometric shapes

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ASK Windows4GL 3.0 Application Development

ASK Windows4GL provides immediate value with its dynamic visual interface. Working with this interface, the application developer automatically employs the native look and feel of the windowing system. The developer need never interact directly with the toolkit of the resident system. Simply by using a mouse to manipulate the screen, a developer creates sophisticated applications quickly. And the new application's interface can dynamically adapt to meet user requirements. Now, in addition to the extensive new capabilities of the visual editor, significant enhancements have been made to the object-oriented 4GL and interactive debugger to support more rapid application development.

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New Features

- Field templates
- Frame templates
- Improved capabilities for geometric elements and bitmaps
- User-editable table field menus (control buttons for pop-up options and menus)
- New field types: multicolumn radio fields, user-creatable palettes
- Developer selectable background patterns and bitmaps
- Developer controlled scrollbar and slider field orientation
- Support for single character quick find keys

Object-Oriented 4GL Features

- Macro Processor — includes conditional compilations, macro variable definition
- Accesses all window elements and menus
- Captures window system and application events
- Manipulates multiple windows in a single application
- Sends and receives messages from other windows
- Shares common class definitions among objects
- Manipulates data in dynamic arrays
- Defines fields and windows dynamically
- Changes display attributes dynamically

New Features

- Dynamic table fields
- Ability to use local procedures, initialization of local variables
- Ability to access ASK Windows4GL arrays and objects from 3GL
- New event support — table scroll, visible window, window icon
- Validation procedures for entry fields
- Dynamic expressions and dynamic field support
- Field script variable declarations, support for field script initialize blocks
- Notification of user event delivery failure
- Event block variable declaration
- Procedure handles

Interactive Debugger Features

- Source-level display
- Seamless integration with the development environment
- Multiple task tracing
- The ability to step forward and backward through event queues
- Interactive object manipulation and examination
- Interactive modification of source code
- Interactive modification of variable contents
- Specification of multiple break points
- Variable examination

New Features

- Debug menu, break-on-next statement
- Improvements to source breakpoint setting and script editing
- Call stack and monitor display support for local procedures and local scoping
- Support for component lists such as included applications and new frame types
- Support for included scripts
- Improved ease-of-use, including ability to view processed script in collapsed mode

ASK Windows4GL 3.0 is the premium solution for enterprise development, providing maximum return on software investment. ASK Windows4GL is designed to extend functionality for production environments and to ease enhancement and refinement of deployed applications. Its unique capabilities allow developers to define class libraries in the object-oriented 4GL, create objects during development or at run time, reuse components or complete applications, and obtain objects in-house or through third parties. Significant improvements have been made to support enterprise application development.

New and Expanded Classes

ASK Windows4GL 3.0 has significantly expanded the number of provided system classes from over 70 system classes to over 125. In addition to previous support for attributes, support for user classes has been expanded to include inheritance, encapsulation, polymorphism, supercedence, and methods.

A unique ability of ASK Windows4GL 3.0 is that developers are also able to use 3GL routines on objects passed to and from the 4GL. With this sophisticated ability, developers may expand their application's functionality beyond the rich functionality of ASK Windows4GL's language.

New System Classes

- Query objects
- Ghost frames
- Dynamic expressions
- Palette fields, option menus, display form, choice fields, and choice bitmaps
- Control buttons (programmable table field menus)
- Combination and list entry fields

Improved System Classes

- Multiple-row/multiple-column radio buttons
- New methods available on matrix fields
- Enhanced table field methods
- Popup frames
- New methods on arrays (sort and find)

User Class Improvements
- Now support inheritance and methods in addition to attributes
- Can be dynamically created
- 4GL methods can be applied
- Improved polymorphism for user objects

ASK Windows4GL 3.0 ensures easy application deployment and support enterprise wide. With ASK Windows4GL 3.0 and the ASK INGRES/Replicator, distributed application management of enterprise systems is possible. ASK Windows4GL 3.0 distributes code automatically throughout an enterprise, synchronizing the run time image of applications. Multiple developer-multiple site teams use ASK Windows4GL 3.0 to coordinate and control various versions of applications.

Distributed Application Management Features:

ASK Windows4GL 3.0 easily handles large development projects involving multiple developers working at multiple sites. ASK Windows4GL utilizes the data dictionary features of an RDBMS to store and track all components of an application throughout its life cycle. Developers can check in and check out components, and can save their own private versions of components while in development. ASK Windows4GL 3.0's application management features allow you to

- Track all application components including menu and dialog box windows, 4GL procedures, 3GL procedures, database procedures, and user class definitions
- Control all application elements through check-in/check-out and the ability to save private versions
- Access data dictionary information about components on line

New Features
- Library applications can be either database or disk resident
- Deletion of specific application versions
- Developers can now edit more than one application at a time
- Improved system utilities — MakeImage utility for multiple application image files and Included Application override

Preliminary Specifications

ASK Windows4GL 3.0 has the following preliminary specifications:

Hardware Requirements
- Intel 486/66 or higher, Sun SparcStation2 or higher
- 16M RAM minimum (Intel), 24M RAM minimum (SPARC), 40MB hard disk space required

Software Requirements:
- ASK INGRES Intelligent Database Server, Release 6.4 or 6.5
- WindowsNT 3.1 or Sun Solaris 2.2
- ASK INGRES/Net (client)

ASK Group

FOR IMMEDIATE RELEASE

THE ASK GROUP UNVEILS NEXT-GENERATION DEVELOPMENT TOOLS

New ASK OpenROAD™ products propel rapid development of enterprise information systems

MOUNTAIN VIEW, Calif., October 4, 1993 -- The ASK Group, Inc. (NASDAQ:ASKI), strategic business software provider, today announced a new family of products aimed at helping companies solve one of their most critical information processing challenges -- rapidly developing and refining the information systems that run their businesses worldwide.

The ASK Group will deliver the first two products in its new ASK OpenROAD™ family of application development tools, along with new services offerings, over the next 6-9 months. OpenROAD, which stands for open Rapid Object Application Development, allows developers to achieve as much as a 10-fold productivity improvement over current methods. In addition, by providing OpenROAD on more than 20 hardware and software platforms, the ASK Group is setting a standard for platform support among independent tools providers.

"ASK OpenROAD represents a new approach to software development," said Stephen Weyl, president of the ASK Group's Development Tools Product Unit. "It is based on a philosophy of building applications from existing components using the highest-level development language available and allowing the generation of dynamic enterprise applications without writing software code. This will allow large-scale systems to be implemented at speeds inconceivable even a short time ago."

Weyl said this is important in today's dynamic environment which requires continual "business process re-engineering," forcing software developers to rapidly implement new systems and continuously refine existing ones.

(more)

The first of the new products and services within the ASK OpenROAD family will include a new version (Release 3.0) of ASK Windows4GL, the company's graphical application development tool, a next-generation model-based code generator and service offerings consisting of a development methodology and consulting packages for rapid implementation.

Weyl said the new products will provide users:

• High-performance support for a variety of databases in addition to the ASK Group's INGRES database, including databases from Oracle Corporation and Sybase Inc; through custom drivers;

• The ability to create powerful visual applications using a "dynamic" interface that is intuitively understood by users;

• The ability to build, enhance and refine large-scale systems faster using model-based application generation techniques that eliminate the code-writing necessary with language- and methodology-based tools;

• Lower maintenance costs and reliability improvements through the new capability of reusing existing "objects," or whole applications stored in an application library;

• The ability to automatically control and synchronize applications worldwide through enhanced distributed application management technology.

In endorsing the ASK Group's new approach to application development, customer Chuck O'Leary, a vice president of Modisette Associates of Houston, Texas, said, "ASK Windows4GL brought us a 67 percent reduction in time to develop graphically-oriented pipeline management software for transportation and oil companies worldwide. With ASK OpenROAD, we'll be able to improve that productivity even more and develop applications across multiple database platforms; this is a truly open solution."

Maximum Flexibility and Freedom of Choice

ASK OpenROAD provides a scalable, desktop-to-enterprise development and deployment environment that supports up to thousands of users.

(more)

Applications employ the technology best suited to address business requirements; for instance, a decision support application can employ gateways while a transaction processing application can be deployed against transaction processing monitors. In addition, ASK OpenROAD permits developers to build applications that are portable across multiple environments with no code changes.

ASK OpenROAD supports popular operating systems including Microsoft Windows 3.1 and WindowsNT, Apple Macintosh, IBM OS/2, UNIX and Digital Equipment Corporation's OpenVMS; a range of relational databases including ASK INGRES, Oracle, Sybase, IBM DB2 and Digital Rdb as well as IBM IMS, Hewlett Packard Allbase and other non-relational databases; all major microprocessor architectures including Intel 80x86/Pentium, SPARC, RS/6000, HP/PA, Alpha and Motorola; transaction processing monitors such as Tuxedo; a range of other tools including CASE, 3GL, 4GL and visual interface software.

Easy Creation of Visual Interfaces

ASK OpenROAD supports the development of applications that employ a dynamic visual interface to allow users to visually interact with business functions. This reduces training costs and increases user effectiveness. For example, in an airline reservation application, the agent could have a picture of an airplane to indicate current seat occupancy and simply click on an empty seat to indicate that it has been filled. Developers also have the ability to dynamically adapt the interface to meet user requirements, such as incorporating a new type of airplane into the airline reservation system example.

Rapid Development of Large-Scale Systems

By using the enterprise data model as the starting point of application development, ASK OpenROAD will enable developers to build, enhance and refine large scale systems in a time-frame not possible with language- or methodology-based toolsets.

(more)

As a result of the model-based generation capabilities, business and data integrity rules can be incorporated automatically into applications, standard coding practices can be enforced, modifications can be made manually and changes can be reconciled automatically. For instance, instead of a status code for an employee being a numerical value like 1 or 0, the developer can specify in the data model that inactive employees be referenced by a red box and active by a green one. Every subsequent application that uses employee status information would then automatically adopt the color-coded attributes.

Maximum Return on Software Investment

ASK OpenROAD is based on a powerful, object-oriented architecture that provides developers with the ability to create "class libraries" in an object-oriented 4GL (fourth generation language) and do it during development or in runtime mode without the need to exit to a 3GL to obtain desired functionality. Objects, components and whole applications that are specifically tailored to a user's environment can be stored in the libraries and be re-used over and over again. The ASK Group is currently working with third-party developers to build application libraries targeted at common business functions such as entry forms, accounting screens and tax tables. As a result of these capabilities, developers can generate large applications (defined as using 1000s of screens) 10 times faster than with current development approaches.

Easy Deployment of Enterprisewide Applications

ASK OpenROAD's unique distributed application management capabilities enable companies to automatically deploy applications to worldwide sites, guarantee that users have the current version and ensure that applications are always available and running. ASK OpenROAD applications are stored within a data dictionary that is accessible to any user on the network on which it resides.

ASK OpenROAD Availability

The first of the products in the new ASK OpenROAD family -- ASK Windows4GL 3.0 and the new model-based code generator -- will be available within 6-9 months, as will the new services offerings. Pricing details and configuration options will be announced within 90 days.

Today, more than 100,000 developers use the ASK Group tools in organizations like Time-Warner, AT&T, Barclays Bank, NASA, and the Hewlett-Packard Company. The ASK Group's development tools team has a 10-year history of leadership in the tools market beginning with the release of ABF, the first client-server 4GL tool in 1984; followed by the introduction of ASK Vision, the first 4GL generator in 1988; ASK Windows4GL, the first object-oriented 4GL environment in 1989; and the availability of that environment on the most window managers in 1992.

The ASK Group, Inc., is a developer and integrator of strategic business software, providing corporations with the technologies and services to build, connect, manage and maintain information systems. With revenue of $426 million for fiscal year ended June 30, 1993, the company employs more than 2,300 employees in 82 offices who serve customers worldwide.

# # #

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ASK is a registered trademark of The ASK Group, Inc. OpenROAD is a trademark of The ASK Group, Inc.

ASK Group

FOR IMMEDIATE RELEASE

THE ASK GROUP DEMONSTRATES PROOF OF "OPEN" STRATEGY

<u>Unveils Next-Generation Development Tools, Outlines Upcoming</u>
<u>Announcements</u>

MOUNTAIN VIEW, Calif., October 4, 1993 -- The ASK Group, Inc. (NASDAQ:ASKI), strategic business software provider, today presented proof of the success of its mission to provide "open" software to customers with the unveiling of a new family of next-generation development tools products and details on upcoming company announcements.

The new product family, called ASK OpenROAD™, enables companies to rapidly develop and refine the information systems that run their worldwide operations. OpenROAD, which stands for open Rapid Object Application Development, allows developers to achieve as much as a 10-fold productivity improvement over current methods while also providing them the choice to move freely between more than 20 hardware and software platforms.

The ASK Group will deliver the first two products in the ASK OpenROAD™ family, along with new services offerings, over the next 6-9 months. The first of the new products and services within the ASK OpenROAD family will include a new version (Release 3.0) of ASK Windows4GL, the company's graphical application development tool, with high-performance support for a variety of databases in addition to the ASK Group's INGRES database, including databases from Oracle Corporation and Sybase, Inc.

(more)

"As we continue to deliver on our promise to become truly 'open,' you will see bold moves aimed at providing customers choice in products, services and distribution channels worldwide," said Pier Carlo Falotti, president and CEO of the ASK Group. "By enabling our tools to work with databases from other vendors, and providing customers the industry's fastest development environment, we are unleashing the true power of client/server computing."

Falotti outlined upcoming developments that continue to implement the open strategy beginning with the November announcement of the next release of the ASK INGRES Intelligent Database. He also referenced the company's commitment to making its product line available on WindowsNT, Microsoft Corporation's new operating system, and indicated that the next release of ASK MANMAN/X, the company's manufacturing information system, would support the Informix database and hardware systems from Sun Microsystems Computer Corporation.

The ASK Group's open strategy, unveiled in March 1993, provides customers the choice of a range of products and services by focusing the company's resources on "opening up" its offerings to support products from other vendors. In addition, the company's "open approach" to doing business had it creating the new, separate tools business, reshaping the company into smaller, more entrepreneurial product units and consolidating its worldwide distribution operations.

Falotti framed the discussion of future announcements with an update of the company's recent achievements including:

• The market acceptance of ASK MANMAN/X with the shipment of 115 licenses to 5600 users since the product's availability in October 1992. ASK MANMAN/X currently supports the ASK INGRES Intelligent Database and Oracle database and hardware systems from Hewlett-Packard Company, International Business Machines Corporation and Digital Equipment Corporation.

• The continued technology leadership of ASK INGRES with the introduction of modules for security and replication and the shipment of the first, commercially-available, Open Database Connectivity (ODBC) driver;

(more)

• The introduction of award-winning, world-class knowledge services and the evolution of existing services to provide customers unprecedented flexibility, such as "a la carte" options to build customized packages;

• The aggressive revamping of the distribution organization with an increased focus on indirect channels, new partner programs and support initiatives;

• The appointment of industry-leading executives including Amal Johnson, IBM veteran, as president of the Manufacturing Systems Product Unit and Stephen Weyl, entrepreneur and former Apple Computer executive, as president of the Development Tools Product Unit.

"I'm especially pleased with our success in attracting executives of Amal and Steve's calibre to the ASK Group, as I believe that ultimately, it is the people that enable a company to fulfill customer needs," continued Falotti. "We have the right people, products and worldwide infrastructure to become a formidable presence in the strategic business software market."

Strategic business software is defined as the backbone database, application development tools and packaged applications that allow corporations to build, connect, manage and maintain information systems. Examples include a bank's trading system, a utility's power grid management system, a factory's order entry and scheduling system or a hospital's accounting or payroll system.

The ASK Group, Inc., is a developer and integrator of strategic business software, providing corporations with the technologies and services to build, connect, manage and maintain information systems. With revenue of $426 million for fiscal year ended June 30, 1993, the company employs more than 2,300 employees in 82 offices who serve customers worldwide.

# # #

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The ASK OpenROAD
Rapid Object Application
Development Environment

ASK Group

The ASK Group, Inc.
1080 Marina Village Parkway
Box 4026
Alameda, CA 94501-1095

Telephone: 510.769.1400

A SOLID BUSINESS PARTNER

COMPANY OVERVIEW

The ASK Group, Inc. is a supplier and integrator of strategic business software, which includes: the backbone database management system, application development tools, connectivity products and packaged applications that allow corporations to build, connect, manage and maintain information systems. As one of the largest independent software companies worldwide, the ASK Group has 82 sales offices and global representation within 53 countries.

The ASK Group is the only business software supplier offering a framework for truly "open" solutions. The company goes a step beyond being a software "developer" and also acts as a software "integrator." Taking an open approach to doing business, the ASK Group partners with customers to integrate and service not only our own products, but those from other companies – even competitors. Taking an open approach to software, the ASK Group's products operate with all major hardware and operating systems environments and a variety of databases, protecting a customers' existing data and systems and offering a choice for future enhancements.

FINANCIAL STABILITY

Revenue
• $426 million revenue for fiscal year ended June 30, 1993
• Revenue increased at a compound annual rate of 25 percent for last five years
• Hardware resales were 50 percent of total revenue in 1990; 12 percent by July, 1993
• Revenue is balanced globally with North America representing 49 percent of sales

Investment Partners
Hewlett-Packard (H-P) and Electronic Data Systems (EDS) continue as strong investment partners, owning 9 and 18 percent of the company's stock, respectively.

Debt Management and Cash Generation
$60 million of debt incurred in 1990 as part of the Ingres Corporation acquisition has been reduced by 82 percent, ahead of schedule.

Rated by the Press
√ *Manufacturing Systems*	"Software Top 50"
√ *Electronic Business*	"Top 200: Software"
√ *InformationWeek*	"Top 50 Software Vendors"
√ *Digital News*	"The Top 50: Software Category"
√ *UNIXWORLD* Magazine	"Top 5 Software Vendor/Unix Review"

(more)

MARKET MILESTONES

Technology Firsts

- First Intelligent Database
- First MRP II Application
- First Database Gateway
- First Distributed Database
- First 4GL for Relational Database
- First Graphical Object-Oriented 4GL
- First Relational Database Manager with a Statistics-Based Performance Optimizer

Acknowledgement from the Press

√ *Digital News & Review*   "Best Manufacturing & Distribution Software"
√ *Digital News & Review*   "Best Database"
√ *Digital News & Review*   "Best Tools"
√ *Digital News & Review*   "Editor's Choice Award"
√ *Corporate Computing*   "Best Buy of 1993"

Strength in Numbers

- 1,000,000 end-users utilizing ASK INGRES products
- More than 200,000 end users running on ASK MANMAN and ASK MANMAN/X
- 90 percent of ASK MANMAN/X sales have been to new ASK Group customers
- Growth in market share for manufacturing from 9th in 1992 to 5th in 1993
- 115 ASK MANMAN/X licenses shipped, totaling more than 5,600 users since Oct. 92
- 100,000 customers develop client/server applications with ASK tools
- Declared "one the fastest growing open manufacturing product in the industry" by:
  Yankee Group and Industry Decisions

STRATEGIC PARTNERSHIPS

The ASK Group has significant relationships with key partners, encompassing technology, marketing and distribution agreements. Value-added resellers, systems integrators and independent software vendors fall into this category, as well as those vendors, and even competitors, working in concert with the ASK Group's corporate or product development organizations. A partial list of worldwide partners includes:

NEC • Sema Group • Price Waterhouse • Andersen Consulting • Olivetti • Baan Int'l
NYNEX ALLINK Company • Sun Microsystems • NCR • Pyramid • Motorola • Cray
IBM • • H-P • Computer Software Packages • Silicon Graphics • Amdahl • ISIS Int'l
SHL SystemHouse • Oracle • ESL • Data General • Digital Equipment Corp. • EDS
Bull • Sequent • Siemens Nixdorf • Novell • Hitachi • Microsoft • Apple • Fujitsu

HIGH STANDARDS IN QUALITY AND SERVICE

With a 21-year history of servicing customers, the ASK Group provides world-class professional knowledge services of technical support, education and consulting to ensure customers maximum efficiency and productivity.

Awards of Recognition

√ Software Supplier of the Year   ICL
√ Mark of Quality Bronze Medal   IBM
√ Premier VAR of the Year   Intermec
√ Best Software Service/Support   *Software Magazine*
√ Highest Rating for Support   International Data Corporation

ASK Group

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MANAGEMENT BACKGROUNDER

THE CORPORATE PHILOSOPHY

The "open" concept forms the nucleus of the ASK Group's corporate climate. It is the key concept which drives the company's product and technology directions, even if being open means cooperating with a competitor. It pushes the company to evaluate market needs from the customer's perspective. It stimulates collaborative efforts with a multitude of vendors.

Because of the ASK Group's commitment to being an open organization in the broadest sense, the company has transitioned to a network of smaller, entrepreneurial-style groups, both independent and interdependent to maximize the synergies that exist among the company's business units.

This framework allows each operation to pivot quickly when needed to respond to customer's needs and evolving market conditions. By creating smaller entities within this multimillion dollar corporation, the company is able to foster a "startup" company mentality, despite the fact that it is one the largest independent software companies in the world. Each unit has the flexibility to bring new products and services to market faster and can promote its own culture of teamwork, trust and openness to individual ideas and contributions.

THE ASK GROUP PEOPLE MAKE THE DIFFERENCE

It is the people who provide the services and share their knowledge, expertise and dedication, who ultimately determine the fate of a corporation. It is the specific mix of people at the ASK Group which differentiates the organization from its industry counterparts.

Over the years the ASK Group has attracted a diverse and talented employee population with a rich mix of personalities, experiences, education and cultural backgrounds. Now more than 2,300-people strong, the work force is split almost evenly between North America and offices in the rest of the world. Many employees are veterans of large Fortune 500 companies, as well as from startups and multinational corporations. Some are new, and quite a few have been with the ASK Group through the various stages of the company's growth spanning the last two decades. A strong management team, with its breadth and depth of skills and knowledge, leads the ASK Group.

Executive profiles, which follow, include: Sandra L. Kurtzig, Pier Carlo Falotti, Marilyn Bohl, Eric Carlson, Amal Johnson, Michael Laven, Jean-Paul Minarro, Stephen Weyl and Leslie E. Wright.

1

SANDRA L. KURTZIG
FOUNDER

At the core of the company's entrepreneurial spirit is Sandra L. Kurtzig, founder and recently retired chairman of the ASK Group. With $2,000 in her pocket and a spare room in her home, Kurtzig started in 1972 what was intended as a part-time business while raising her family. Kurtzig has sat at the helm as president and chief executive officer from 1972-1985 and 1989-1992, when she stepped down from active management of the company. In September 1993 she retired as chairman. Today, the ASK Group is one of the largest independent software companies worldwide with revenue of $426 million (for fiscal year ended June 30, 1993) and is one of the largest public companies in the United States founded by a woman.

Kurtzig has been the recipient of many business awards including the Harvard Business School Alumni Achievement Award, the Junior Achievement Business Hall of Fame Award, and the American Academy of Achievement Golden Plate Award. Her autobiography, "CEO: Building a $400 Million Company from the Ground Up" was published in May 1991.

Kurtzig, 46, holds a bachelor of science degree in mathematics from the University of California at Los Angeles (UCLA) and a master's in aeronautical engineering from Stanford University. She is a member of the boards of Harvard Business School, UCLA's School of Management, the Hoover Institution and Stanford's School of Engineering.

PIER CARLO FALOTTI
PRESIDENT AND CHIEF EXECUTIVE OFFICER

Known for his innovation in customer service, selling, training and organizational methodologies and models, Pier Carlo Falotti has worldwide management responsibility for the ASK Group. Joining the company in September 1992, Falotti has provided the vision, the structure and the motivation to bring the people and the technologies of the ASK Group together to realize the "open" business strategy, benefiting its customers and the industry.

Prior to joining the ASK Group, Falotti was president of Digital Europe, a position that crowned a successful 23-year tenure with Digital Equipment Corporation. During his years at Digital, Falotti's accomplishments included growing the European operation seven-fold to a $7 billion business, managing a series of alliances and acquisitions including Mannesman Kienzle and Philips Information Systems Division. He also drove the Digital equity participation in Olivetti, building a field service organization and customer support processes that became company-wide Digital standards. Prior to Digital, Falotti spent six years with Sperry-Univac Italy in several technical advisory positions.

A philosopher and theoretician of management development, Falotti has been actively involved as a teacher and board member in INSEAD (Fontainebleau, Paris) and IMD (Lausanne, Switzerland), leading European business schools. He was the Chairman of the Business Advisory Council at IMD and he is a member of the Council for U.S. and Italy Relations.

Falotti, 51, holds a technical degree in electrical engineering from Avogadro University in Turin, Italy and attended a professional management corse at Harvard Business School.

MARILYN BOHL
SR. V.P., ENGINEERING-DATABASE & CONNECTIVITY UNIT
CHIEF TECHNOLOGY OFFICER

With more than 25 years' experience working with technology-related companies, Marilyn Bohl plays a key role in the ASK Group's worldwide software development efforts. In addition to leading the engineering efforts of the company's Database and Connectivity Product Unit, Bohl is chief technology officer. In this role, she heads the ASK Group's shared engineering resources and leads the company's Technology Council to foster the exchange of technological synergies among the product units and chart the course of the company's future technology innovations.

Bohl is a 19-year IBM veteran, with eight of those years spent developing and marketing IBM's relational database management system, DB2. She left IBM to move to Digital Research, Inc. as vice president of product development and marketing. Bohl joined Ingres Corporation in November 1988.

Bohl is also a noted author of textbooks for colleges, universities, technical institutes and business users. Her first book was published in 1970. Nine books have appeared since; two are in second editions, one in third and one in fourth edition. Topics covered in the books include: computing technology, programming languages and logic, data management, data communications and business uses of computers.

Well-known and highly respected by many throughout the industry, Bohl, 57, is a frequent speaker at industry forums and conferences. She holds a bachelor's degree in mathematics from the University of Northern Iowa, Cedar Falls, Iowa.

ERIC CARLSON, Ph.D.
EXECUTIVE VICE PRESIDENT
CORPORATE STRATEGIES AND NEW VENTURES

Eric Carlson brings over 20 years' experience in the computer industry to his roles as "evangelist" for the ASK Group's evolving open systems strategy and "driver" behind the company's overall product architecture and portfolio.

Since joining ASK in 1990, Carlson has played a significant role in the success of all product lines, including most recently the development and introduction of MANMAN/X, the industry's fastest growing open manufacturing product. Prior to his current position he served as president of the company's Manufacturing Systems Product Unit.

Other related experience includes eight years at Convergent Technologies as senior vice president and general manager of the Distributed Systems Division; two years at Unisys as vice president and general manager of the UNIX Systems Group; and 10 years at International Business Machines (IBM), where he held several technical and managerial positions.

Carlson, 49, holds a bachelor's degree in economics from Carleton College in Minnesota, and a master's in city and regional planning as well as a doctorate in computer science from the University of North Carolina, Chapel Hill. A co-author of numerous technical books and articles, Carlson is a frequent industry speaker. He also is heavily involved in his community, having served on the City Council for 10 years, with two terms as mayor.

AMAL JOHNSON
PRESIDENT, MANUFACTURING SYSTEMS UNIT

Amal Johnson leads the worldwide product development and marketing effort at the ASK Group's Manufacturing Systems Product Unit, which supplies comprehensive manufacturing business management systems and services to companies globally. She joined the ASK Group in July 1993.

Johnson has nearly 18 years of engineering, sales, marketing and general management experience with IBM and Bank of America. Johnson's most recent IBM post was general manager of the Silicon Valley Trading Area, an organization with more than $300 million in annual revenue and 600 employees. She is credited with consolidating six functional operations into a single business unit responsible for all IBM hardware, software, maintenance, system integration and consulting services to companies located in the Silicon Valley.

Johnson, 40, did her graduate work in computer science and electrical engineering at the Steven's Institute of Technology located in New Jersey. She holds a bachelor's degree in mathematics/physics from Montclair State College, New Jersey.

MICHAEL LAVEN
PRESIDENT, WORLDWIDE DISTRIBUTION UNIT

Michael Laven manages the worldwide distribution of all products and services for the ASK Group. Established in March 1993, the distribution business unit provides the company with a single entity equipped with the infrastructure to offer customers ASK Group products or those from other vendors. Laven had previously been senior vice president of worldwide field operations for Ingres.

Before joining Ingres in 1990, Laven was the European vice president for McCormack & Dodge (now Dun & Bradstreet Software Services). He started with McCormack & Dodge in 1982 and held various positions in international operations, including vice president of sales for Canada and Latin America. Laven also worked in international development for the United Nations and non-governmental organizations within Asia.

Laven, 45, holds a bachelor's degree in anthropology from Wesleyan University, Connecticut, and a master's in education from Harvard University.

PETER MICCICHE
VICE PRESIDENT, NORTH AMERICA OPERATIONS

As vice president of North America Operations, Peter Micciche, former president of Cognos U.S.A., is responsible for sales, marketing and customer services in North America. Micciche has a track record of success in building organizations that deliver strategic solutions to customers and increasing market share in the growing open systems market. At Cognos, Micciche was responsible for sales, marketing, service, finance, and administration for the $65 million application development tools and related services business. He led the company's dramatic turnaround of U.S. operations which resulted in 10 consecutive quarters of profits after a loss in 1989.

Before joining Cognos, Micciche was regional vice president for Applied Data Research with responsibility for managing sales and support of database and system software.

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Prior to ADR, Micciche held marketing, sales and sales management positions at General Electric Software International where he created and executed tailored strategies for developing high-level awareness of products and services in Fortune 500 companies.

Micciche holds a B.S. degree in finance and accounting from Boston College, and a M.B.A., finance concentration, from Suffolk University.

JEAN-PAUL MINARRO
SENIOR VICE PRESIDENT, WORLDWIDE MARKETING

As the senior vice president of marketing for the ASK Group, Jean-Paul Minarro orchestrates the company's global marketing strategy, product planning and tactical marketing programs worldwide.

Minarro was promoted to his current position in January 1993 after having spent three years as managing director of Ingres France in Paris. Under Minarro's tutelage, Ingres France revenue more than tripled, primarily through innovative and aggressive marketing programs. He was also instrumental in designing and implementing Ingres France's indirect channels strategy, involving strategic partnerships with value-added resellers, systems integrators and independent software vendors. This strategy now serves as a model for other company offices in Europe.

Prior to Ingres, Minarro was vice president of Econocom, a French leasing company, where he managed the 300-person services division. Other related experience includes six years with McCormack and Dodge Inc. (now Dun & Bradstreet Software Services). While there he served as director of southern Europe and general manager of the France operation. He has also held a variety of sales management positions with Computer Associates and CCMC (a French software company).

Minarro, 36, holds a degree in accounting. Additionally he is a graduate of SupdeCo (ESC, a French business school.

DAVID SOHM
VICE PRESIDENT, SYSTEMS PARTNERS GROUP

David Sohm oversees all relationships with ASK Group systems partners, ranging from hardware manufactures to independent software vendors, to encourage the widespread implementation of the company's open approach to doing business. In this new position for the company, Sohm also works with sales channels teams to localize the ASK Group's technology leadership position for individual country markets.

Sohm was previously the president of Data 3 Systems Product Unit, which produces one of the leading manufacturing information systems designed for use on IBM's AS/400 family of computers. Under Sohm's leadership, the division won the IBM Mark of Quality Bronze Medal, expanded market share by doubling international sales and created the company's first indirect sales channel in North America. He joined ASK Computer Systems in 1984 and held a variety of senior management positions, including vice president of marketing and development, before becoming general manager of Data 3 in 1989 when it was acquired by ASK. He was promoted to president of Data 3 in 1991. Other prior experience includes 12 years with Hewlett-Packard.

Sohm, 44, earned a bachelor's in mathematics from Occidental College, Los Angeles, Calif., and a master's in computer science from the University of Wisconsin at Madison.

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STEPHEN WEYL
PRESIDENT, DEVELOPMENT TOOLS UNIT

Steve Weyl is responsible for developing and marketing the ASK Group's application development tools products worldwide. Formed in March 1993, the Development Tools Product Unit's exclusive focus is accelerating the creation of "open" software development tools for customers building enterprise applications. Weyl joined the company in July 1993.

With 20 years of sales, marketing and engineering experience, Weyl brings specific expertise in the developing and bringing to market tools, expert systems and relational databases. He was formerly the director of developer tools for Apple Computer, Inc. Before Apple, Weyl co-founded three software companies: Syntelligence, an expert systems supplier; Ascent Logic Corporation, a provider of CASE software; and Objective Software, Inc., a company offering intuitive tools for manipulating relational data on personal computers. As a co-founder he raised more than $15 million in venture capital.

Weyl, 41, has a bachelor's degree in mathematics and a master's in computer science, both from Stanford University. Additionally, Weyl has an MBA from Harvard Business School.

LESLIE E. WRIGHT
EXECUTIVE VICE PRESIDENT
CHIEF FINANCIAL AND ADMINISTRATIVE OFFICER

Les Wright has worldwide responsibility for the ASK Group's finance, accounting, treasury, MIS, legal and administrative functions and is a key designer and implementer of the company's sound business practices.

Wright is currently on the national advisory board of the Massachusetts Computer Software Council. He has also served on the American Electronics Association's finance committee and has authored a paper on various accounting issues affecting software companies. He has been with ASK since 1984. His prior experience includes working with Trilogy Limited, Amdahl Corp. and Arthur Andersen & Co.

Wright, 40, is a certified public accountant and holds a bachelor's degree in accounting from San Jose State University, California.

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ASK Group

The ASK Group, Inc.
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Alameda, CA 94501-1095

Telephone: 510.769.1400

CORPORATE FACTS

COMPANY PROFILE

The ASK Group, Inc. is a supplier and integrator of strategic business software, providing corporations with the technologies and services to build, connect, manage and maintain information systems. Strategic business software consists of:

- The backbone database system to "intelligently" manage data, knowledge and objects.
- Development tools products to build software applications rapidly.
- Connectivity products to allow data access and manipulation on multiple networks.
- Packaged applications for manufacturing designed to help businesses streamline operations and control costs.
- World-class professional knowledge services of technical support, education and consulting to ensure customers maximum efficiency and productivity.

Customer examples include: a bank's trading system, a utility's power grid management system, a factory's order entry and scheduling system or a hospital's accounting or payroll system.

COMPANY'S MARKET DIFFERENTIATION

The ASK Group is the only business software supplier offering a framework for truly "open" solutions. As one of the largest independent software companies worldwide, the ASK Group goes a step beyond being a software "developer" and also acts as a software "integrator." Taking an open approach to doing business, the ASK Group partners with customers to integrate and service all software products, even the competition's. Taking an open approach to software, the ASK Group's products operate with all major hardware and operating systems environments and a variety of databases, protecting customers' existing data and systems and offering a choice for future enhancements.

INVESTMENT PARTNERS

Hewlett-Packard (H-P) and Electronic Data Systems (EDS) own 9 and 18 percent of the company's stock, respectively.

REVENUE

- $426 million (for fiscal year ended June 30, 1993)
- Increased at a compound annual rate of 25 percent for last five years
- Balanced globally with North America representing 49 percent of sales

DISTRIBUTION

Direct and indirect through:
- 82 worldwide sales offices
- Global representation within 53 countries

NUMBER OF EMPLOYEES

More than 2,300

(more)

STRATEGIC PARTNERSHIPS

The ASK Group has significant relationships with key partners, encompassing technology, marketing and distribution agreements. Value-added resellers, systems integrators and independent software vendors fall into this category, as well as those vendors, and even competitors, working in concert with the ASK Group's corporate or product development organizations. A partial list of worldwide partners includes:

NEC • Sema Group • Price Waterhouse • Andersen Consulting • Olivetti • Baan Int'l
NYNEX ALLINK Company • Sun Microsystems • NCR • Pyramid • Motorola • Cray
IBM • H-P • Computer Software Packages • Silicon Graphics • Amdahl • ISIS Int'l
SHL SystemHouse • Oracle • ESL • Data General • Digital Equipment Corp. • EDS
Bull • Sequent • Siemens Nixdorf • Novell • Hitachi • Microsoft • Apple • Fujitsu

MILESTONES

1972 Founded by Sandra L. Kurtzig. Incorporated in July, 1974.

1974 Pioneered the first standard material requirements planning (MRP) software product for mini-computers.

1981 Initial public offering of company stock. NASDAQ: "ASKI"

1987 Acquired NCA Corporation for $43 million, making the ASK Group the largest MRP II supplier operating on Digital's VAX series.

1989 Acquired Data 3 Systems for $19 million, making the ASK Group one of the top 10 MRP suppliers for IBM AS/400 computers.

1990 Acquired Ingres Corporation for $112 million, making the ASK Group a broad-based supplier of strategic business software.

1992 Pier Carlo Falotti named president and CEO of The ASK Group, Inc.

1993 Implemented "open" business strategy.

EXECUTIVE MANAGEMENT

Pier Carlo Falotti, President and CEO
Marilyn Bohl, Sr. Vice President, Engineering/Database and Connectivity Unit, Chief Technology Officer
Eric Carlson, Exec. Vice President, Corporate Strategies and New Ventures
Amal Johnson, President, Manufacturing Systems Unit
Michael Laven, President, Worldwide Distribution Unit
Jean-Paul Minarro, Sr. Vice President, Worldwide Marketing
David Sohm, Vice President, Systems Partners Group
Stephen Weyl, President, Development Tools Unit
Leslie E. Wright, Exec. Vice President, Chief Financial and Administrative Officer

BOARD OF DIRECTORS

Paul C. Ely, Jr., General Partner, Alpha Partners
Pier Carlo Falotti, President and CEO, The ASK Group, Inc.
Robert N. Sharpe, Vice President Business Development, EDS
Thomas L. Unterberg, Managing Director, Unterberg Harris
Robert H. Waterman, Jr., Chairman, Waterman & Miller, Inc.

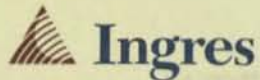## CORPORATE PUBLIC RELATIONS CONTACT

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▲ Ingres

FOR IMMEDIATE RELEASE

THE ASK GROUP DELIVERS ADVANCED REPLICATION CAPABILITIES FOR THE CLIENT/SERVER ENTERPRISE
ASK INGRES/Replicator Reduces System Costs While Improving Productivity And Data Availability

ALAMEDA, Calif., September 13, 1993 -- The ASK Group, Inc. today announced ASK INGRES/Replicator, an advanced data replication product that allows organizations to copy, distribute and maintain data in multiple locations, thereby increasing the performance of information management systems by providing more efficient access to enterprise data.

By replicating and maintaining data locally, ASK INGRES/Replicator helps companies reduce overall system costs, increase data availability and improve user productivity. Since the product is transparent to applications, ASK INGRES/Replicator requires no additional coding or end-user training, giving organizations the benefits of replication with minimal cost.

"Previously, when updates occurred to a table in a database, customers had to contend with replicating and distributing the entire table -- no matter how large -- to multiple locations on a timely basis. This proved to be too expensive and time consuming, and in many cases not possible," said Beverly Brown, vice president of marketing for The ASK Group's database and connectivity products. "ASK INGRES/Replicator allows the customer to replicate and distribute just the data that has changed, resulting in more cost-effective and better management of enterprise data."

(more)

As part of an enterprise-wide distributed system, ASK INGRES/
Replicator boosts productivity on wide area and local area networks by placing
data in locations best able to manage it. In addition to reducing response times
and increasing data availability at remote sites, ASK INGRES/Replicator reduces
network traffic and improves overall system performance.

In developing ASK INGRES/Replicator, The ASK Group incorporated
input from more than 20 customers sites using INGRES replication capabilities in
production environments. One such customer is Conoco, Inc., a Houston-based
oil company, which designed a bulletin board for its worldwide network of more
than 1,500 users.

Bill Menger, consultant of exploration data systems for Conoco Inc., said,
"We wanted to design a system that would alert company scientists and
engineers across our worldwide network about new discoveries, research data
and other scientific documents. We decided to replicate our data using INGRES
because the technology allows us to move data closer to the user, provide local
data access and management at several Conoco sites, and ensure continuous data
availability at those sites in the event of system or network failure."

Data Integrity/Fault Tolerance

Data integrity and consistency are critical concerns for companies using
replication systems. Simply using table "snapshots" to replicate data may not
capture all updates performed by a particular transaction, especially if the
transaction affects more than one table within a database. With ASK INGRES/
Replicator, data from transactions are only available for replication after the
transaction has committed locally and in entirety.

(more)

ASK INGRES/Replicator also is a key element in a fault tolerant information system. If a database fails, users can be switched to any source or replicated database. Upon recovery, all data changes are replicated to the appropriate databases automatically.

Resolving Conflicts

With ASK INGRES/Replicator, any conflicts with replicated data are immediately detected and can be automatically or manually resolved. In all cases, conflicts are logged with a before and after image of the data rows causing the update conflict. This is especially helpful when synchronizing data between an operational standby database and a recovered main database.

Flexibility

ASK INGRES/Replicator's flexible architecture and comprehensive on-line management tools facilitate easy implementation and administration of the replication system for any distributed database configuration. In addition to allowing the system to replicate entire databases or subsets of databases, ASK INGRES/Replicator supports replication in master/slave, cascade and peer-to-peer schemes.

Product Availability

ASK INGRES/Replicator will be available in 90 days. The product supports all ASK Group application development tools as well as INGRES-supported third-party tools. Through ASK Gateways, ASK INGRES/Replicator can support non-INGRES data sources including DB2 and IMS from IBM, RMS and Rdb from Digital, and ALLBASE from Hewlett-Packard.

(more)

For additional product and pricing information, customers in the United States should call 1-800-446-4737. Customers outside the United States should contact the local ASK Group office.

The ASK Group, Inc. is one of the largest software companies in the world, with revenue of $426 million for its fiscal year ended June 30, 1993. There are more than 2,400 employees in 90 offices who serve customers worldwide. The company's shares are traded publicly on the NASDAQ National Market System under the symbol ASKI.

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ASK Group Public Relations
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