

DEFINITIVE

Market Report



*the international authority on
technology adoption
and return on investment
presents*



DIGITAL ASSET MANAGEMENT MARKET REPORT

2002

COMPREHENSIVE ASSESSMENT OF MARKETS, DEMAND DRIVERS,
CUSTOMER REQUIREMENTS, TRENDS, SOLUTIONS, AND VENDORS

Trends and forecasts 1991-2005

PUBLISHED SPRING 2002

426 pages

POPULATIONS AND EXPENDITURES

- Worldwide, 4 regions plus U.S. breakout, 57 selected countries
- 10 industry groups, 80 industries
- 12 asset producer & user types
- 5 levels of workforce scale
- 8 work activity groups

MARKET SEGMENTS

Hardware, software, services

SOLUTION CATEGORIES

- Brand resource management
- Digital asset management

LISTINGS

- 616 DAM solution providers
- 1246 knowledge asset management solution providers
- Top 500 eCommerce firms
- Top 2000 US brands
- Top 500 US sales forces



AUTHORS

CHARLES E. CALDWELL

VP, GISTICS Incorporated
Founder, NextQuarter LLC
chas@star.net

JEFF MARTIN

CEO
Tribal Brands
jeff@tribalbrands.com

MICHAEL MOON

CEO
GISTICS Incorporated
moon@gistics.com

DESIGN, LAYOUT,
EDITING, AND
PRODUCTION**DAVID DUNNING**

dunning@gistics.com

STEVE TURNER

Turner Associates
steve@turnersf.com

gist \ˈjɪst\ *n* -s [AF, it lies (said of a legal action), fr. MF, 3d pers. sing. pres. indic. of *gesir* to lie, fr. L *jacere* to lie, fr. *jacere* to throw — more at JET (to spout)] **1:** the ground or foundation of a legal action without which it would not be sustainable **2:** the main point or material part (as of a question or debate) : the pith of a matter : ESSENCE (the ~ of a question) <the ~ of all that can be said upon the matter—R. L. Stevenson>

—Webster's Third New International Dictionary Unabridged

GISTICS MISSION

Founded in 1987, GISTICS Incorporated *researches* return-on-investment for the adoption of new technologies and *publishes* its findings in comprehensive market reports and single-topic executive white papers.

Executive white papers enable senior executives at end-use firms to recognize an attainable opportunity and move quickly to exploit it. These white papers present highly visual explanations of complex technologies and how to profit from them by following best-practice deployment prescriptives. Current offerings include:

UNLOCKING THE VALUE OF THE DIGITAL MASTER

Strategies for accelerating the time-to-market and reducing the cost of promotional messages, multichannel brand resources, and print and online publications.

Business case and selection criteria for deploying enterprise-class digital asset management (DAM) systems in advertising, distribution, entertainment, manufacturing, professional services, publishing, and telecommunications. (14 pages, published Spring 2002, \$295 US)

BUSINESS CASE FOR BRAND RESOURCE MANAGEMENT

Strategies and metrics for managing brands across multiple channels, markets, and media

Summary of best practices for accelerating time-to-market of branding messages and digital goods, time-to-synchronize for brand resources to maximize effect at points of purchase, and time-to-customize branding messages or digital goods for channel partners, localized markets, and customer groups. (25 pages, published Spring 2002, \$295 US)

MARKET REQUIREMENTS FOR VISUAL SEARCH

How visual search solves the inadequacy of text-based search for users of the Web and corporate networks

Management advisory analyzing the impact of visual search on general Web use, e-commerce applications, online shopping, student research projects, peer-to-peer trading communities, media asset management, medical imaging diagnosis, selling ringtones to mobile phone users, and wireless location-based e-services. (54 pages, published Summer 2001, \$295 US)

DIGITAL ASSET MANAGEMENT MARKET REPORT 2002

Comprehensive assessment of markets, demand drivers, customer requirements, trends, solutions, and vendors

This report contains trends and forecasts 1991 to 2005:

- Population and expenditure data for worldwide, 4 major regions, and 57 select countries
- 8 industry groups and 80 industries
- 12 asset producer and user types, 5 levels of workforce scale, and 8 work activity groups
- Knowledge-based and solution-based (IT) expenditures
- Hardware, software, and service expenditures for digital asset management
- Directory listings of the following
 - 616 DAM solution providers
 - 1246 knowledge asset management solution providers
 - Top 500 US eCommerce firms (online sales from 2001)
 - Top 500 US sales forces
 - Top 2000 US brands

(426 pages, published Spring 2002, \$5,995 US)

GISTICS Incorporated
6601 Shellmound
Emeryville, CA 94608
www.gistics.com
415 924 3703 tel
415 927 4337 fax

© 2002 GISTICS Incorporated. All rights reserved. Printed in the U.S.A.

GISTICS and its agents have used their best efforts in collecting and preparing information published in this brochure for the *Digital Asset Management Market Report 2002*.

GISTICS does not assume, and hereby disclaims, any liability for any loss or damage caused by errors and omissions in this brochure for the *Digital Asset Management Market Report 2002*, whether such errors or such omissions resulted from negligence, accident, or other causes.





**INTRODUCTION TO
DIGITAL ASSET MANAGEMENT 2002**

ESSENTIAL QUESTIONS:

page

- 4 *What is the economic function of digital asset management?*
- 5 *What organizing principles frame digital asset management?*
- 6 *What's the difference between content and digital assets?*
- 7 *What is a digital asset?*
- 8 *What distinguishes various types of digital assets?*

END-USER BUSINESS MODEL DETERMINES ROI FOR DAM

Digital asset management represents a business strategy for **accelerating business-process cycle times**.

The value of accelerating business-process cycle time for a particular business will reflect the basic nature of that business—its business model. What satisfactions does it bring to a market and how does it capture value in exchange?

Generally, businesses whose revenues reflect short-term marketing investments (consumer packaged goods, entertainment, automobiles, consumer electronics) will reap the highest return on investment from digital asset management. These fast-cycle businesses can use DAM to both increase revenues and reduce costs.

Other businesses whose revenues derive from long-term contracts, mature products with long lifecycles, customers locked in by high switching costs (such as computer operating systems, programming languages, databases, or regulatory compliance criteria) will also enjoy a return on investment from DAM, but their benefits will likely derive from **process improvements** and **cost reductions** more than increased revenues.

Speeding business-process cycle times provides several economic benefits, including the production of incremental revenue, reduction in operating costs, the capacity to create new products or markets, and an overall enhancement of competitive adaptability.

DAM CAN INCREASE INCREMENTAL REVENUE IN THREE WAYS

First, DAM can reduce the time it takes to launch a new product or drive new promotional messages to potential customers.

Second, DAM enables marketing managers to quickly fine-tune promotional messages and delivery formats, maximizing the effectiveness of marketing resources at point of purchase.

Third, DAM can help marketing and merchandising managers more quickly localize packaging and promotions to the requirements of a geographic market; more quickly customize packaging and promotions to particular sales channels, partners, or seasonal opportunities; and more quickly personalize digital products or promotional messages to the preferences of individual customers.

VARIETIES OF DIGITAL ASSETS

The figure below suggests **nine different types of digital assets**, each emphasizing a degree of reuse. We discuss these asset types on page 8.

The figure also emphasizes three more important dimensions of digital asset management.

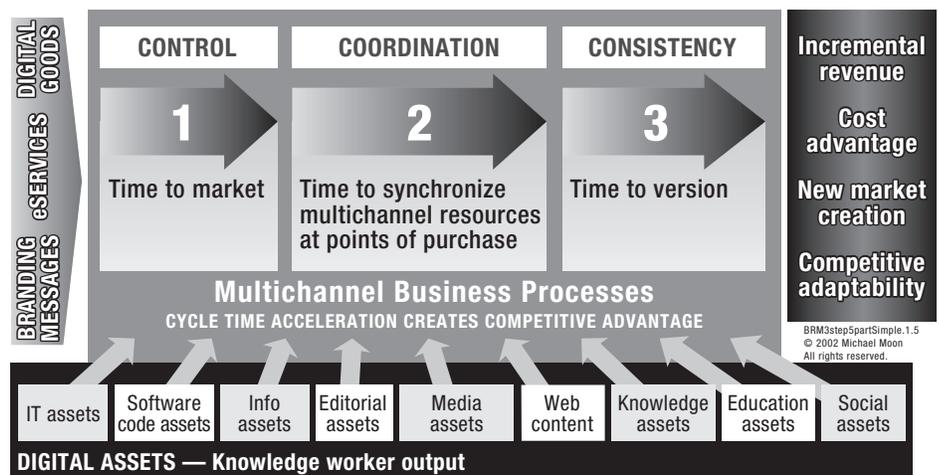
First, **knowledge workers** of the firm create these digital assets—outputs from use of digital authoring tools and related technologies.

Second, execution of a DAM-enabled business strategy requires the development of a set of best practices and IT solutions that supports knowledge workers creating and using preexisting digital assets.

Third, full realization of a DAM-enabled business strategy entails integration of digital assets into **multichannel business processes**. In this context, multichannel connotes both online and offline formats as well as direct and indirect sales channels.

BUSINESS MODEL EMPHASIZES WHOM THE FIRM SERVES AND HOW IT MAKES MONEY

Knowledge workers produce a variety of reusable digital objects that—when managed for systematic reuse—can become financial assets that accelerate the cycle time of multichannel business processes.



DAMMRcp02Bro.1.5 © 2002 GISTICS. All rights reserved.

DIGITAL ASSET MANAGEMENT DEFINED

Primary research into the most profitable media enterprises identifies systematic cataloging and reuse of digital media files as a critical success factor for growth, profitability, and competitive advantage.

Digital asset management represents a practice of the most profitable media producer enterprises in the industry. It boosts the productivity and work quality of designers, producers, creative directors, new media developers, and service bureaus.

This practice also emphasizes the strategy of seeking to retain and/or exploit intellectual property rights for digital media.

KEY DEFINITIONS FOR DIGITAL ASSETS, REUSE, REEXPRESSION, AND CONTENT

Digital assets implies that digital files have commercial value—that another party will pay to own or use them. These assets also have value as *process agents* that reduce project cycle times and external purchases, while ultimately increasing revenue and profit per employee.

Process agents signify a relatively new category of intellectual capital—knowledge embedded in a digital object, automation script, or template. Use of process agents speeds cycle time, improves quality and predictability, and reduces reliance on the tacit knowledge of key workers.

Multipurposed assets means that a designer and/or owner took steps to ensure its cost-effective future reuse or reexpression.

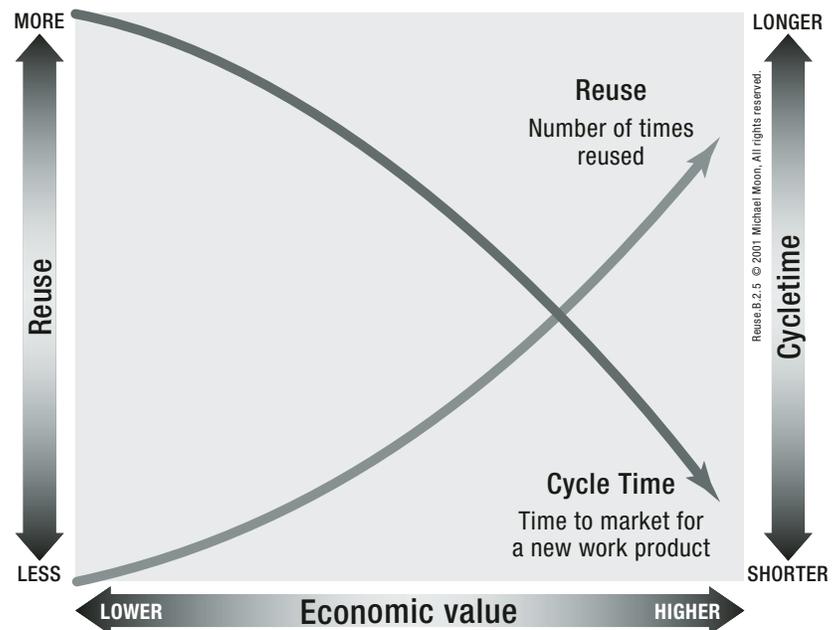
Reuse connotes using a piece of media or digital object again, generally in the same medium, such as for print collateral and magazine advertisements.

Reexpression emphasizes minor modifications to a source media file for its expression across two or more media (print and online), enhancing it for each medium. For example, a designer might create an illustration for use in both a four-color brochure or Web page. To do that, the original artwork needs to have certain characteristics that facilitate its reexpression.

Repurposing (a common term usually misapplied to the notions of reuse and reexpression) entails an attempt to reuse media or text in a way that its creator never intended. Generally, this practice results in a lowest-common-denominator, mediocre expression: *content*.

Content represents undifferentiated, single-purpose, and/or denuded objects. Content, as related to media (McLuhan, *Understanding Media*, 1967), represents the failed attempt to use media designed for one medium, such as a theatrical play, in another, such as a television broadcast of that play, without regard for the expressive possibilities and limitations of each medium.

BUSINESS CASE FOR REUSE



As reuse increases, cycle time grows shorter. For media producer firms, shorter time-to-market cycles translate into more projects completed annually per person—incremental revenue that translates into high profit.



CONTEXT DETERMINES ECONOMIC VALUE

Nearly 40 years ago, Marshall McLuhan coined the term *content* as it relates to media. In his seminal book, *Understanding Media*, he argues persuasively that the context or medium that transmits media to consumers has a much greater impact on the individual and society than does the subject matter itself.

McLuhan demonstrates that when one attempts to reuse material by placing it in a new context or medium, something vital gets lost. For example, when TV first emerged, some networks tried to televise theatrical plays, a practice that produced incredibly bad TV shows. With the emergence of CD-ROMs, some multimedia producers repurposed books, magazines, and TV shows—all with similarly disastrous results.

To memorialize the disastrous consequence of “repurposing” media in ways that the creators did not intend, McLuhan uses the term *content*.

Content—as a term that connotes a business strategy and an economic context—represents the systematic abuse of creative material.

Content represents the denuding of creative expression, the deletion of data from a digital file in a way that renders it useless for all but a single-purpose deployment.

Nevertheless, *content management* (CM) has emerged as a significant market category for medium to large enterprises. Essentially, content management entails the tracking, distribution, and control of “dead” digital files that have little or no subsequent reuse potential.

The figure below depicts two important dimensions that distinguish DAM from CM.

First, content has a very short lifespan. GISTICS research indicates that the lifecycle for single-purpose-built content averages less than seven weeks.

Digital assets, on the other hand, have a reuse life span exceeding 18 months.

Second, content has a very low, if not nonexistent, potential for reuse or reexpression (a creative reinterpretation or authoring). This decreased potential reflects the fact that someone deleted critical data from the digital original, often requiring the artist or designer to start over to replicate the “lost” original.

Work products represent interim expressions of a digital file or variations on a creative theme. While these work products may not enjoy a long lifespan, they often represent extensions or enhancements of a brand image, indicating the need to track and control them for proper use throughout an enterprise.

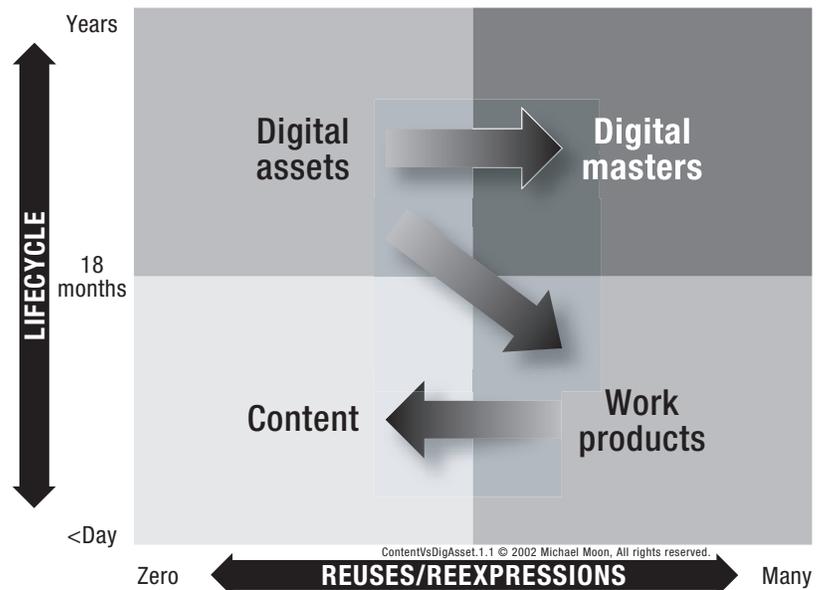
Digital masters represent a type of digital asset created by someone who took great care to ensure the highest level of reuse and reexpression.

A digital master may contain sufficient data to produce dozens or hundreds of individual expressions of a single theme.

The figure below also suggests that digital assets form the basis of digital masters and work products, and that content derives from purpose-built expressions of a work product.

EXTENDED LIFECYCLES AND HIGH POTENTIAL FOR REUSE SEPARATE DIGITAL ASSETS FROM CONTENT

Digital files engineered for an extended lifecycle and systematic reuse and reexpression define the digital master, the most valuable form of a digital asset. In sharp contrast, content has little or no reuse potential and a very short life span.



DAMMRcp02Bro.1.5 © 2002 GISTICS. All rights reserved.

DIGITAL ALCHEMY

Digital assets represent a new class of financial assets. In most cases, the firm paid one or more knowledge workers to create them, representing significant labor and overhead expenses.

Some firms have begun to capitalize this expense, creating new entries on corporate balance sheets.

As the name also suggests, a digital asset constitutes a **unit of work** that exists in digital form. This characteristic alone gives it several unique properties.

First, its value does not decrease with its use. Paradoxically, the value of many digital assets (corporate logos) *increases* with higher use.

Second, you can store a digital file on just about any mass-storage device. This high mobility allows almost instant movement for virtually no cost.

Third, many firms find these digital files reusable as is or with only slight modification. This reuse saves a considerable amount of time otherwise spent re-creating existing objects and reduces new errors or distortions that the re-creation might introduce.

Fourth, many designers build complex and sophisticated digital objects from hundreds or thousands of highly modular digital building blocks. This modular approach enables designers and others to quickly exchange various parts and create myriad new forms consistent in look and feel with the originals. This practice not only enhances creative expression, it also dramatically reduces cost and time to market for those expressions.

CAPITALIZING DEVELOPMENT EXPENSES

Generally accepted accounting practice now supports the capitalization of a variety of digital assets.

In the direct marketing and catalog industry, auditors permit the capitalization of customer databases, especially when the firm can show how a database record helps the firm generate future sales.

In the software industry, many firms capitalize software development costs when they can show reuse of class libraries, software objects, and programming frameworks.

In the entertainment industry, many firms capitalize promotions for motion pictures when they can show reuse in post-release marketing efforts such as international distribution, video rental, and DVD sales.

In the online database and publishing industry, many firms capitalize the development of specialized collections of articles, research data, and news reportage.

The figure below depicts a broad range of digital asset categories. CFOs and auditors recognize several as financial assets of the firm.

Digital objects generally qualify as assets when auditors can validate the following criteria:

Has the firm shown reuse of the object for a period greater than 18 months?

Has the firm documented the object's development costs?

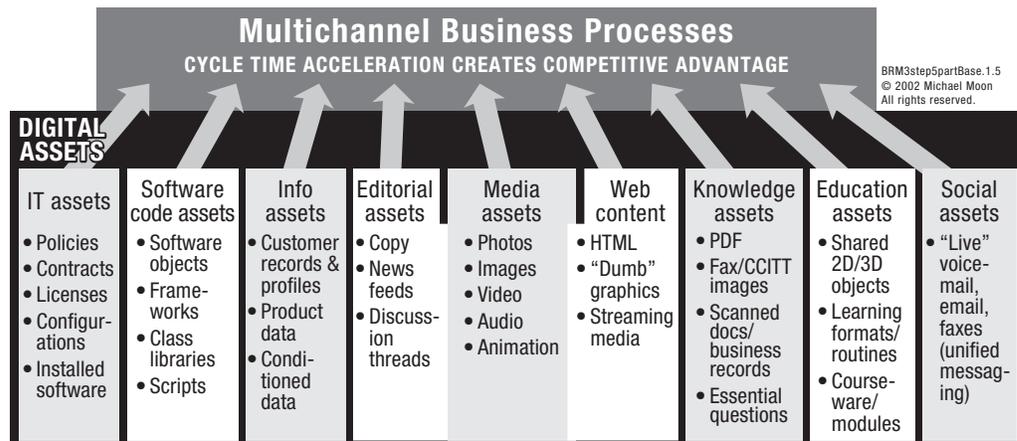
Has the firm documented how the object has directly contributed to a sale or an identifiable cost savings?

Has the firm taken prudent measures to ensure the object's reuse and protection from misuse?

Meeting these criteria requires a specialized data management system, a *digital asset management* system.

UNITS OF WORK THAT SPEED MULTICHANNEL BUSINESS PROCESSES

Auditors will allow firms to capitalize development costs of digital objects upon meeting generally accepted accounting practices: a reuse life span of greater than 18 months and financial accounting of the object's costs and contributions to a firm.



What distinguishes various types of digital assets?

INVENTORY OF DIGITAL ASSETS

A digital asset management strategy optimizes the creation, use, reuse, and reexpression of the following types of digital objects.

ASSET TYPE	DESCRIPTION	SOURCES	UNITS OF WORK	COMMENTS
Education assets	Online courseware optimized for the connative and cognitive abilities of individual students; often represents compound media and knowledge objects	Subject-matter experts, teachers, and communities of practice or expertise; lectures, courseware, classroom discussions, probe-further links and references, lab notes, footnotes, annotated bibliographies, interviews, audio and video recordings of performances	<ul style="list-style-type: none"> • Database-served <ul style="list-style-type: none"> – Web pages – JIT documents/PDFs • Streaming media <ul style="list-style-type: none"> – Audio, video, animation • Shared objects <ul style="list-style-type: none"> – 2D/3D models, maps, visualizations • Discussion <ul style="list-style-type: none"> – Teleconference, threaded postings, live chat 	<ul style="list-style-type: none"> • Specialized user interfaces optimized to learning process of individuals • Complex systems required for managing royalties, attributions, institutional rights, and international clearances • Hotspots: English as a second language (ESL) curriculum teaching brand management and technical systems support
Information assets	Rows and columns of structured data conditioned and engineered for secure presentation through a browser	Production data systems of record, data warehouses, and database information services	<ul style="list-style-type: none"> • Customer records <ul style="list-style-type: none"> – Transactions, interactions • Product data <ul style="list-style-type: none"> – Sales histories, forecasts, pricing, inventories • Management information <ul style="list-style-type: none"> – Budgets, financial statements • Brand resources <ul style="list-style-type: none"> – Subscriptions, traffic, dwell-time interactions 	<ul style="list-style-type: none"> • Prerequisites of database hygiene and trained information users • Robust data typing schema (XML)
IT assets	Tangible and intangible assets including computing and communications equipment, installed software, capitalized professional services, systems and software configurations, warranty coverage, and business-continuity services	MIS/IT departments of the firm as well as ASPs/MSPs or co-located equipment	<ul style="list-style-type: none"> • Installed and configured hardware or software • Promised/guaranteed service-level agreements 	<ul style="list-style-type: none"> • DAM solutions for IT assets: • Configuration management • Policy management • Update management and version control
Knowledge assets	Collections of unstructured data in digital formats (binary large objects, BLOBs) and physical formats (mechanical devices, models, props)	Knowledge workers throughout the firm and its value chain of suppliers, distributors, and affiliates	<ul style="list-style-type: none"> • Digital formats <ul style="list-style-type: none"> – CAD files – eDocs, PDFs – Email, WP files – Scanned images – Slide presentation files – Spreadsheets – Web pages, interfaces • Physical formats <ul style="list-style-type: none"> – Artwork, artifacts – Business records – Letters, faxes – Manuscripts, sheet music – Maps, drawings – Movies, stills, film – Props, costumes 	<ul style="list-style-type: none"> • Identification and retrieval of only useful materials • Searching the contents of digital files • Digitization and characterization of material; application of metadata • Rights and permissions management
Media assets	Components used in brand resources (ads, brochures, websites), publications, and entertainment products (music, voice, video)	Designers, producers, authors, and developers of print, broadcast, online, and media-based products or services	<ul style="list-style-type: none"> • Ads <ul style="list-style-type: none"> – Online – Broadcast, CATV – Print • CD, DVD, cassettes • Documents, publications <ul style="list-style-type: none"> – Online, eDistributed – Print, ePrint 	<ul style="list-style-type: none"> • Reusability of media across multiple media • Cross-platform compatibility • Rights and permissions management
Social assets	Digital files or packets that mediate or facilitate person-to-person communications, live or time-shifted (store and forward)	Conversations or correspondence by telephone, email, fax, or SMS	<ul style="list-style-type: none"> • Messages • Threaded discussions 	<ul style="list-style-type: none"> • DAM interfaces to unified messaging systems • Search tools including voice mining, audio pattern recognition, semantic-text patterns
Software code assets	Reusable pieces of software programming (objects), class libraries, programming frameworks, lines of legacy programming instruction, and automation scripts	MIS/IT professionals, contractors, software vendors, and open source user groups	<ul style="list-style-type: none"> • Software objects, including source code • Class libraries and frameworks • Programming tools and utilities • Integrated development environments 	<ul style="list-style-type: none"> • Standards-based development (Java) • Reuse starting with design spec for “maintainability” (minimum documentation as to function) • Incentives, design rules, and version-control practices playing critical roles





REPORT PROSPECTUS

ESSENTIAL QUESTIONS:

page

- 10 *What does this report cover (EXECUTIVE SUMMARY)?*
- 12 *Which questions do we answer, listed by page (CONTENTS)?*
- 18 *What tables do we present in this report (TABLES)?*
- 20 *How do GISTICS and NextQuarter help the DAM market grow?*
- 21 *How did we develop this report?*
- 22 *What quantitative and qualitative strategies did we use?*
- 23 *How can you order the DAMM Report 2002 (EXECUTIVE ORDER FORM)?*

This report reflects a comprehensive, ongoing investigation of an important category in the development of the Networked Economy. In 1993, GISTICS identified digital asset management in its nascent form: multimedia databases for graphic designers and publishing professionals.

Since then, digital asset management has exploded into a \$60 billion category. This figure represents total worldwide expenditures incurred by public and private enterprises in the management of reusable digital objects.

From whence have these digital objects come? Apparently, from everywhere.

These digital objects continue to flow from the PC revolution that began in 1980s, continuing in the later emergence of multimedia publishing (CD-ROM and DVD), the popular acceptance of the Internet (email) and the Web (HTML), interactive multiuser games, streaming and downloadable media (RealAudio, MP3, QuickTime, and Windows Media), broad corporate acceptance of shared electronic documents (MS Office files, Acrobat PDF, HTML) distance learning (interactive curricula, shared 2D/3D objects, real-time text messaging), and instant messaging (AOL, wireless SMS).

In this report, we make the case that reusable and reexpressible digital objects can make these contributions:

- Dramatic reduction in the cost of doing business, particularly those costs associated with eBusiness (rich media, product data, self-service answers to customer questions).
- Significant reduction in business-process cycle times, highlighting the acceleration of time to market for digital goods and selling messages.
- Potentially huge new additions to corporate balance sheets, recognizing reusable digital objects as financial assets.
- Higher degree of control of brand identities (logos, trademarks, product images) throughout a value chain of marketing service providers and distributors.

SECTION OVERVIEWS

We present this report in four comprehensive sections totaling 426 pages.

SECTION I—OVERVIEW OF ECONOMIC DATA collates secondary data from numerous sources, including the CIA World Fact Book,

International Monetary Fund, United Nations, U.S. government, and the World Bank. This data sets the foundation for an econometric forecast of worldwide and regional GDP and population growth, along with a breakdown of this data into ten industry groups, with an emphasis on the knowledge-based and solution-based industries that make up the Information industry group.

Section I also includes a listing of the top 500 eCommerce firms, as measured by revenues and profits derived from their online activities.

SECTION II—eMEDIA MARKETSPACE provides a first-ever compilation of worldwide and regional populations of knowledge workers—creators and producers of digital objects.

Section II examines the 12 digital asset creator groups we identify, detailing worldwide and U.S. populations, a breakdown of their file creation and management activities, and the total average online storage. This section includes a breakout of media creators and users by the size of their workgroups, as well as the top 2,000 U.S. brands and the top 500 U.S. sales forces—excellent references for the top destinations for brand-related digital assets.

SECTION III—BRAND RESOURCE MANAGEMENT links digital asset management and corporate performance. We detail an expanding array of applications and services of DAM for marketing and sales support, as well as eCommerce and distance learning.

SECTION IV—DIGITAL ASSET MANAGEMENT comprises a worldwide and regional market analysis, collating total estimated end-user expenditures in the management of digital objects. We segment data into three categories—hardware, software, and services—and break each of these down further into relevant subcategories.

This section discusses various approaches to digital asset management and how to categorize this burgeoning field.

Section IV also includes a comprehensive business case and return on investment framework for DAM, and details the kinds of savings that a large catalog operation, small prepress house, and a global Web development firm might expect.

Finally, Section IV concludes with two comprehensive listings of solution providers for digital asset management and knowledge asset management.



Digital Asset Management Market Report 2002

*Comprehensive Assessment of Markets, Demand Drivers,
Customer Requirements, Trends, Solutions, and Vendors*

CONTENTS//SECTIONS & SUBSECTIONS

I OVERVIEW OF ECONOMIC DATA

- A WORLDWIDE INDUSTRIAL OUTPUT AND POPULATIONS
- B EUROPEAN INDUSTRIAL OUTPUT AND POPULATIONS
- C NORTH AMERICAN INDUSTRIAL OUTPUT AND POPULATIONS
- D PACIFIC RIM INDUSTRIAL OUTPUT AND POPULATIONS
- E INDUSTRIAL OUTPUT AND POPULATIONS IN THE REST OF THE WORLD
- F U.S. INDUSTRIAL OUTPUT AND POPULATIONS
- G INTERACTIVE 500

II eMEDIA MARKETSPACE

- A KNOWLEDGE-WORKER POPULATIONS
- B DIGITAL ASSET CREATOR ROLES
- C DIGITAL ASSET CREATOR POPULATIONS
- D WORKFORCE DISTRIBUTION OF DIGITAL ASSET CREATORS AND USERS
- E AMERICA'S TOP 2000 BRANDS
- F TOP 500 U.S. SALES FORCES

III BRAND RESOURCE MANAGEMENT

- A ACCOUNTABILITY FOR MARKETING
- B BRAND MANAGEMENT
- C BRAND RESOURCE MANAGEMENT
- D BRM STRATEGIES
- E BRM CUSTOMER CASES
- F SEARCH
- G SONIFICATION

IV DIGITAL ASSET MANAGEMENT

- A ECONOMICS OF DIGITAL ASSETS
- B DIGITAL ASSET MANAGEMENT SOLUTIONS
- C DAM MARKET FORECASTS
- D DIGITAL ASSET MANAGEMENT SOLUTION VENDORS
- E KNOWLEDGE ASSET MANAGEMENT SOLUTION PROVIDERS
- F BUSINESS CASE AND RETURN ON INVESTMENT FOR DIGITAL ASSET MANAGEMENT



- ii Sources
- iii Table of Contents
- ix List of Tables
- xi Executive summary
- xii How do GISTICS and NextQuarter help the DAM market grow?
- xiii How did we develop this report?
- xiv What quantitative and qualitative strategies did we use?

I OVERVIEW OF ECONOMIC DATA

- 1.3 Section goals
- 1.4 What value can you derive from drilling down with macroeconomic data to better understand the DAM market?
- 1.6 How did we divide the information industry into our two solution and knowledge segments for world, regional, and U.S. markets?

A WORLDWIDE INDUSTRIAL OUTPUT AND POPULATIONS

- 1.8 How large did global population grow from 1991 to 1998?
- 1.9 What did countries contribute to global population growth from 1991 to 1998?
- 1.10 How much will global population grow from 1999 to 2005?
- 1.11 What will countries contribute to global population growth from 1999 to 2005?
- 1.12 How did the total and regional gross domestic products (GDPs) of the top 57 nations grow from 1991 to 1998?
- 1.13 What did countries contribute to economic growth from 1991 to 1998?
- 1.14 How much growth will global and regional GDP achieve from 1999 to 2005?
- 1.15 What will countries contribute to economic growth from 1999 to 2005?
- 1.16 Which industry groups contributed to worldwide GDP growth from 1991 to 1998?
- 1.17 Which industry groups will contribute to worldwide GDP growth from 1999 to 2005?
- 1.18 How do we define our ten industry groups?
- 1.19 What kinds of products and services are found in each industry group?
- 1.20 How fast did global expenditures grow for knowledge-based products and services from 1991 to 1998?
- 1.21 How fast will global expenditures grow for knowledge-based products and services from 1999 to 2005?
- 1.22 What industries constitute the Knowledge industry subgroup segment?
- 1.23 Which types of companies make up these Knowledge industries?
- 1.24 How fast did global expenditures grow for solution-based products and services from 1991 to 1998?
- 1.25 How fast will global expenditures grow for solution-based products and services from 1999 to 2005?
- 1.26 What Hardware and Software industries are included in the Solutions industry group segment?
- 1.27 What Service industries are included in the Solutions industry subgroup segment?
- 1.28 What percentage of the worldwide Solutions industry subgroup does digital asset management represent?

B EUROPEAN INDUSTRIAL OUTPUT AND POPULATIONS

- 1.30 How large did the European population grow from 1991 to 1998?
- 1.31 How large will the European population grow from 1999 to 2005?
- 1.32 How did European country GDPs grow from 1991 to 1998?
- 1.33 How will European country GDPs grow from 1999 to 2005?
- 1.34 Which European industry groups contributed to GDP growth from 1991 to 1998?
- 1.35 Which European industry groups will contribute to GDP growth from 1999 to 2005?
- 1.36 How fast did European expenditures grow for knowledge-based products and services from 1991 to 1998?
- 1.37 How fast will European expenditures grow for knowledge-based products and services from 1999 to 2005?
- 1.38 How fast did European expenditures grow for solution-based products and services from 1991 to 1998?
- 1.39 How fast will European expenditures grow for solution-based products and services from 1999 to 2005?
- 1.40 What percentage of the European Solutions industry subgroup does digital asset management represent?

C NORTH AMERICAN INDUSTRIAL OUTPUT AND POPULATIONS

- 1.42 How large did the North American population grow from 1991 to 1998?
- 1.43 How large will the North American population grow from 1999 to 2005?
- 1.44 How did North American GDP grow from 1991 to 1998?
- 1.45 How will North American GDP grow from 1999 to 2005?
- 1.46 Which North American industry groups contributed to GDP growth from 1991 to 1998?
- 1.47 Which North American industry groups will contribute to GDP growth from 1999 to 2005?
- 1.48 How fast did North American expenditures grow for knowledge-based products and services from 1991 to 1998?
- 1.49 How fast will North American expenditures grow for knowledge-based products and services from 1999 to 2005?
- 1.50 How fast did North American expenditures grow for solution-based products and services from 1991 to 1998?
- 1.51 How fast will North American expenditures grow for solution-based products and services from 1999 to 2005?
- 1.52 What percentage of the North American Solutions industry subgroup does digital asset management represent?

D PACIFIC RIM INDUSTRIAL OUTPUT AND POPULATIONS

- 1.54 How rapidly did the Pacific Rim population grow from 1992 to 2005 projections?
- 1.55 How large did the Pacific Rim population grow from 1991 to 2005 projections?
- 1.56 How did Pacific Rim GDP grow from 1991 to 1998?
- 1.57 How will Pacific Rim GDP growth from 1999 to 2005?
- 1.58 Which Pacific Rim industry groups contributed to GDP growth from 1991 to 1998?
- 1.59 Which Pacific Rim industry groups will contribute to GDP growth from 1999 to 2005?
- 1.60 How fast did Pacific Rim expenditures grow for knowledge-based products and services from 1991 to 1998?
- 1.61 How fast will Pacific Rim expenditures grow for knowledge-based products and services from 1999 to 2005?



OVERVIEW OF ECONOMIC DATA (CONT.)

PACIFIC RIM INDUSTRIAL OUTPUT AND POPULATIONS (CONT.)

- 1.62 How fast did Pacific Rim expenditures grow for solution-based products and services from 1991 to 1998?
- 1.63 How fast will Pacific Rim expenditures grow for solution-based products and services from 1999 to 2005?
- 1.64 What percentage of the Pacific Rim Solutions industry subgroup does digital asset management represent?

E INDUSTRIAL OUTPUT AND POPULATIONS IN THE REST OF THE WORLD

- 1.66 How large did populations grow in the rest of the world from 1991 to 1998?
- 1.67 How large will populations grow in the rest of the world from 1999 to 2005?
- 1.68 How did GDP grow in the rest of the world from 1991 to 1998?
- 1.69 How will GDP grow in the rest of the world from 1999 to 2005?
- 1.70 Which industry groups contributed to GDP growth in the rest of the world from 1991 to 1998?
- 1.71 Which industry groups will contribute to GDP growth in the rest of the world from 1999 to 2005?
- 1.72 How fast did expenditures grow for knowledge-based products and services in the rest of the world from 1991 to 1998?
- 1.73 How fast will expenditures grow for knowledge-based products and services in the rest of the world from 1999 to 2005?
- 1.74 How fast did expenditures grow for solution-based products and services in the rest of the world from 1991 to 1998?
- 1.75 How fast will expenditures grow for solution-based products and services in the rest of the world from 1999 to 2005?
- 1.76 What percentage of the Solutions industry subgroup in the rest of the world does digital asset management represent?

F U.S. INDUSTRIAL OUTPUT AND POPULATIONS

- 1.79 How large did the U.S. population grow from 1991 to 2000? Will it grow from 2001 to 2005?
- 1.80 How large did the U.S. GDP grow from 1991 to 1998?
- 1.81 Which U.S. industry groups contributed to GDP growth from 1991 to 1998?
- 1.82 How large will the U.S. GDP grow from 1999 to 2005?
- 1.83 Which U.S. industry groups will contribute to GDP growth from 1999 to 2005?
- 1.84 Which U.S. industry groups will contribute to employment growth from 1991 to 2005?
- 1.85 Which industries will contribute to revenue growth of the Consumables industry group in the U.S. from 1991 to 2005?
- 1.86 Which industries will contribute to employment growth of the Consumables industry group in the U.S. from 1991 to 2005?
- 1.87 Which industries constitute the Consumables industry group?
- 1.88 What kinds of products and services are found in the Consumables industry group?
- 1.89 Which industries will contribute to revenue growth of the Education industry group in the U.S. from 1991 to 2005?
- 1.90 Which industries will contribute to employment growth of the Education industry group in the U.S. from 1991 to 2005?
- 1.91 What defines the industries that make up the Education industry group?
- 1.92 Which industries will contribute to revenue growth of the Finance industry group in the U.S. from 1991 to 2005?
- 1.93 Which industries will contribute to employment growth of the Finance industry group in the U.S. from 1991 to 2005?

- 1.94 Which industries constitute the Finance industry group?
- 1.95 Which industries will contribute to revenue growth of the Government industry group in the U.S. from 1991 to 2005?
- 1.96 Which industries will contribute to employment growth of the Government industry group in the U.S. from 1991 to 2005?
- 1.97 Which governing entities constitute the Government industry group?
- 1.98 Which industries will contribute to revenue growth of the Information industry group in the U.S. from 1991 to 2005?
- 1.99 Which industries will contribute to employment growth of the Information industry group in the U.S. from 1991 to 2005?
- 1.100 Which industries constitute the Information industry group?
- 1.101 What kinds of products are found in the Information industry group?
- 1.102 What kinds of services are found in the Information industry group?
- 1.103 Which industries will contribute to revenue growth of the Infrastructure industry group in the U.S. from 1991 to 2005?
- 1.104 Which industries will contribute to employment growth of the Infrastructure industry group in the U.S. from 1991 to 2005?
- 1.105 Which industries constitute the Infrastructure industry group?
- 1.106 What kinds of products and services are found in the Infrastructure industry group?
- 1.107 Which industries will contribute to revenue growth of the Medical industry group in the U.S. from 1991 to 2005?
- 1.108 Which industries will contribute to employment growth of the Medical industry group in the U.S. from 1991 to 2005?
- 1.109 Which industries constitute the Medical industry group?
- 1.110 Which industries will contribute to revenue growth of the Merchandising industry group in the U.S. from 1991 to 2005?
- 1.111 Which industries will contribute to employment growth of the Merchandising industry group in the U.S. from 1991 to 2005?
- 1.112 Which industries constitute the Merchandising industry group?
- 1.113 What kinds of products and services are found in the Merchandising industry group?
- 1.114 Which industries will contribute to revenue growth of the Resources industry group in the U.S. from 1991 to 2005?
- 1.115 Which industries will contribute to employment growth of the Resources industry group in the U.S. from 1991 to 2005?
- 1.116 Which industries constitute the Resources industry group?
- 1.117 What kinds of products and services are found in the Resources industry group?
- 1.118 Which industries will contribute to revenue growth of the Transportation industry group in the U.S. from 1991 to 2005?
- 1.119 Which industries will contribute to employment growth of the Transportation industry group in the U.S. from 1991 to 2005?
- 1.120 Which industries constitute the Transportation industry group?
- 1.121 What kinds of products and services are found in the Transportation industry group?
- 1.122 What is the historic and projected growth of U.S. expenditures for knowledge-based products and services from 1991 to 2005?
- 1.123 What is the historic and projected growth of U.S. expenditures for solution-based products and services from 1991 to 2005?
- 1.124 What percentage of the U.S. Solutions industry subgroup does digital asset management represent?

G INTERACTIVE 500

- 1.126 Which firms ranked in the top 500 in eCommerce revenues for the year 2000?
- 1.136 What methodology was employed for the Interactive 500?



II eMEDIA MARKETSPACE

A KNOWLEDGE-WORKER POPULATIONS

- 2.4 How many workers worldwide create or edit digital assets?
- 2.5 How many workers in Europe create or edit digital assets?
- 2.6 How many workers in North America create or edit digital assets?
- 2.7 How many workers in the Pacific Rim create or edit digital assets?
- 2.8 How many workers in the rest of the world create or edit digital assets?
- 2.9 How many workers in the United States create or edit digital assets?

B DIGITAL ASSET CREATOR ROLES

- 2.12 What activity and cost data characterize an Animation knowledge worker?
- 2.13 What activity and cost data characterize an Archive & Metadata knowledge worker?
- 2.14 What activity and cost data characterize an Audio, EFX & Music knowledge worker?
- 2.15 What activity and cost data characterize a Content & Web Development knowledge worker?
- 2.16 What activity and cost data characterize a Database & Middleware knowledge worker?
- 2.17 What activity and cost data characterize a Desktop Publishing knowledge worker?
- 2.18 What activity and cost data characterize a Digital Photography knowledge worker?
- 2.19 What activity and cost data characterize a Digital Video knowledge worker?
- 2.20 What activity and cost data characterize an Executive Management knowledge worker?
- 2.21 What activity and cost data characterize a General Creative knowledge worker?
- 2.22 What activity and cost data characterize a Marcom & Training knowledge worker?
- 2.23 What activity and cost data characterize a Multimedia Publishing knowledge worker?

C DIGITAL ASSET CREATOR POPULATIONS

- 2.26 Worldwide, how many workers by role create digital assets?
- 2.27 In Europe, how many workers by role create digital assets?
- 2.28 In North America, how many workers by role create digital assets?
- 2.29 In the Pacific Rim, how many workers by role create digital assets?
- 2.30 In the rest of the world, how many workers by role create digital assets?
- 2.31 In the United States, how many workers by role create digital assets?

D WORKFORCE DISTRIBUTION OF DIGITAL ASSET CREATORS AND USERS

- 2.34 Worldwide, how many creators and users work in various team sizes?
- 2.35 In Europe, how many creators and users work in various team sizes?
- 2.36 In North America, how many creators and users work in various team sizes?
- 2.37 In the Pacific Rim, how many creators and users work in various team sizes?
- 2.38 In the rest of the world, how many creators and users work in various team sizes?
- 2.39 In the United States, how many creators and users work in various team sizes?

E AMERICA'S TOP 2000 BRANDS

- 2.42 Which brands ranked in the top 2000 in expenditures in the year 2000?

F TOP 500 U.S. SALES FORCES

- 2.64 Which manufacturing companies rank in the top 200 in the size of their U.S. sales forces?
- 2.68 Which service companies rank in the top 200 in the size of their U.S. sales forces?
- 2.72 Which insurance companies rank in the top 50 in the size of their U.S. sales forces?
- 2.73 Which direct sales companies rank in the top 30 in the size of their U.S. sales forces?
- 2.74 Which were the top automotive U.S. sales forces in 2000?

III BRAND RESOURCE MANAGEMENT

A ACCOUNTABILITY FOR MARKETING

- 3.4 Can we expect to quantify the value of a brand?
- 3.5 How can the chief marketing officer (CMO) correlate elements of a successful campaign to a particular purchase?
- 3.6 What does "closing the branding loop" mean?
- 3.7 What can we learn from the dotcom revolution?
- 3.8 How have markets and customer communications fused, creating new and unexplored marketing challenges?
- 3.9 How does the Web serve as a defining context for media, communications, and commerce?

B BRAND MANAGEMENT

- 3.12 What functions do brands serve? Whom do they serve?
- 3.13 Where do brands live?
- 3.14 What new market force has emerged, changing how customers perceive the value offered by vendors?
- 3.15 What is a brand?
- 3.16 How do customers internalize a brand?
- 3.17 How do buyers and sellers collaborate in building a brand?
- 3.18 What two factors will contribute most to the success of brands in the 21st century?
- 3.19 To which customers must the firm tune its offerings and storytelling, thereby optimizing profits, growth, and future market share?
- 3.20 Beyond customers, who else has a stake in the brand, affecting total brand equity and its valuation as a financial asset of the firm?
- 3.21 How do companies start branding their customers, "connecting the dots" of the buying and using experience to form a relevant, memorable, and beloved identity?
- 3.22 To what end does a branding intent strive? What does it attempt to produce?
- 3.23 How does branding work as a managed process?
- 3.24 What types of storytelling channels support the branding process?
- 3.25 What makes cross-media branding processes so powerful?
- 3.26 How does a closed-loop digital branding system move information and media through dozens of business entities and internal departments?
- 3.27 How will branding work in the future, transforming interactive relationships and user-provided data into personalized expressions of a brand?
- 3.28 How do senior executives articulate the mission and charter of their corporate websites and eService strategy to all members of the firm?



BRAND RESOURCE MANAGEMENT (CONT.)

BRAND MANAGEMENT (CONT.)

- 3.29 How do brands and brand management change with the Networked Economy? What opportunities emerge?
- 3.30 How do sellers use value-based pricing to capture additional profits for their network-supplied, locked-in digital brands?
- 3.31 How do brand managers use switching costs and other lock-ins to encourage loyalty and discourage defections?
- 3.32 What digital resources and eServices drive satisfactions of an eBrand?
- 3.33 How do digital assets and dynamic publishing systems create powerful, digital brands, deliver unique eSatisfactions, and create trusted interactions with customers?
- 3.34 How might a publisher of textbooks or technical how-to manuals re-invent knowledge transfer with digital assets and deep gravity well supersites?
- 3.35 How do you induce prospective customers to visit your supersite? How do naming conventions, trademarks, and metatags leverage search engine hits and spider-driven profiles of your site?

C BRAND RESOURCE MANAGEMENT

- 3.38 How does brand management change in the Networked Economy? What elements of the branding process most radically change?
- 3.39 What is brand resource management?
- 3.40 What are the roots of brand resource management?
- 3.41 What distinguishes brand resource management from digital asset management?
- 3.42 How must a firm's IT computing infrastructure evolve to accommodate multichannel commerce?
- 3.43 What new brand resources does digital technology enable? How do these resources speed time-to-market and time-to-transaction cycles?
- 3.44 Where in R&D do digital brand resources most affect cycle time? Quality? Customer satisfaction?
- 3.45 How do digital brand resources augment the marketing function? How do they reduce time-to-market and time-to-satisfaction cycles?
- 3.46 Where in marketing do digital brand resources most affect cycle time? Quality? Customer satisfaction?
- 3.47 How does a brand asset repository speed marketing department workflows? Time-to-market cycles for licensed merchandise?
- 3.48 How do digital brand resources increase sales productivity?
- 3.49 Where in a sales process do brand resources most affect cycle time? Quality? Customer satisfaction?
- 3.50 How do brand resources empower support groups of a firm? How can they reduce cost? Speed cycle times? Improve quality?
- 3.51 Where in the solution fulfillment process do brand resources make the biggest difference?

D BRM STRATEGIES

- 3.54 What are the seven strategies for BRM?
- 3.55 What are the top three solution priorities for digital asset management?
- 3.56 What is an enterprise asset repository?
- 3.57 What is a smart media factory?
- 3.58 What is an AV media logistics center?
- 3.59 Where do companies typically capture digital video and audio assets?
- 3.60 How can the Web extend the video post-production process to low-cost laptop computers? How can users pre-edit video assets from the beach?

- 3.61 How can users pre-edit video through a browser? How can a producer edit material within minutes of its creation from almost anywhere in the world?
- 3.62 What is a multimedia presentation center?
- 3.63 How can you close the marketing loop at retail?
- 3.64 How does a firm collect the right data once, compile it into meaningful insights, and propagate it to the right people?
- 3.65 What strategic roles other than eService delivery and branding do deep gravity well supersites serve?
- 3.66 What IT megatrend emerges from the dotcom revolution and the delivery of eServices to stakeholders worldwide?
- 3.67 What are the implications for integrated marketing in a multichannel world?

E BRM CUSTOMER CASES

- 3.70 What return on investment has the NFL Photo Library realized from its brand resource management system?
- 3.71 What return on investment has Hubert, a catalog commerce supplier to the grocery industry, realized from its brand resource management system?

F SEARCH

- 3.75 What's (still) wrong with the Web today?
- 3.76 What single factor highlights the Web's failure to deliver useful results?
- 3.77 What's the key economic result of the Web's broken search function?
- 3.78 How do customers buy products at retail?
- 3.79 What most influences the buying impulse at the point of purchase?
- 3.80 What's the current state of the art for search?
- 3.81 How does visual search pace search engine technology?
- 3.82 What types of text search methods exist?
- 3.83 What is content-based image retrieval?
- 3.84 How does visual search span multiple languages?
- 3.85 What's important about searches that span multiple languages?
- 3.86 What are the elements of visual search?
- 3.87 How does whole and partial image search work?
- 3.88 How might a consumer use visual search to find things to buy?
- 3.89 How might a peer-to-peer trading community like eBay use visual search to make more money?
- 3.90 How might an e-commerce portal transform visual search and vocabulary-use data into business intelligence?
- 3.91 How might a student use visual search in a school project?
- 3.92 What kinds of productivity gains do media producers realize with visual search?
- 3.93 How might a media archivist use visual search to more quickly affix keyword metadata to a media asset, creating specialized, potentially licensable visual vocabularies?
- 3.94 How might a medical diagnostician use visual search to analyze 1,000,000+ medical images and isolate a pathology and related therapies, in less than 2 minutes?
- 3.95 How can visual search help manage knowledge assets across a corporate network?
- 3.96 How might a wireless consumer use visual search to find a rare ringtone?
- 3.97 How can visual search help the wireless industry avoid the original sin of the Web, where users still cannot find what they want?
- 3.98 What is the long-view value of visual search?
- 3.99 How does visual search fit into the e-commerce infrastructure of the enterprise?



G SONIFICATION

- 3.103 How does sound affect human perception? The branding process? eCommerce transactions?
- 3.104 What types of digital assets help sonify—add aural data—to a website?
- 3.105 What perceptual qualities differentiate various types of digital audio assets?
- 3.106 When sonifying a website, what user effects result?
- 3.107 How have traditional retailers used music to increase sales productivity? How will eTailers use interactive music?
- 3.108 How do firms build their brands in a controlled, scientific manner?
- 3.109 To what end does branding strive? What does it attempt to produce?
- 3.110 What aspects of a website attract return visitors? What takes a site beyond mere “stickiness”?
- 3.111 What metaphor best communicates a trusted interactions strategy for a branded website or corporate portal?
- 3.112 How does sonification foster trusted interactions with customers? How does it pierce the bubble of suspicion?
- 3.113 What digital resources and eServices drive satisfactions of an eBrand?
- 3.114 How do sonification, interactivity, and user remixes enhance a digital brand?
- 3.115 Why use localized voiceovers for a website? Why do teens think that’s “way cool”?
- 3.116 How much longer do typical visitors stay if they remix popular tunes? How much more often do they return if they personalize a site?
- 3.117 How do “live” interactive audio objects drive instant mouseover effects of a sonified website?
- 3.118 Why do embedded audio objects (streaming-free) make even more sense in the future?
- 3.119 How quickly will 200+ million PC users hook up to the Internet?
- 3.120 How does sonification fit with other megatrends of the Networked Economy?

IV DIGITAL ASSET MANAGEMENT

- 4.2 How large is the digital asset management market?

A ECONOMICS OF DIGITAL ASSETS

- 4.4 What is the economic function of digital asset management?
- 4.5 What organizing principles frame digital asset management?
- 4.6 What’s the difference between content and digital assets?
- 4.7 What is a digital asset?
- 4.8 What distinguishes various types of digital assets?
- 4.9 What is digital asset management, or DAM?
- 4.10 What is a digital master?
- 4.11 Why must a MAM system manage both files and commercial relationships?

B DIGITAL ASSET MANAGEMENT SOLUTIONS

- 4.15 What do customers need?
- 4.16 How does digital asset management draw elements from document management, workflow management, disaster recovery, and business record archiving?
- 4.17 What kinds of systems do digital assets flow through?
- 4.18 How long does it take to fully deploy a media asset management system to return its investment?

- 4.19 How can roadmaps created by successful early adopters illuminate the way for organizations to follow? What really matters?
- 4.20 What symptoms or issues within a media-producing organization highlight problems related to media asset management?
- 4.21 What decision-making factors should management consider paramount when deploying a MAM system?
- 4.22 What prescriptive actions inform purchase decision-making for MAM solutions?
- 4.23 What should CTOs consider prior to deploying a MAM system?
- 4.24 Why does the N-tier computing model define the deployment challenge for MAM?
- 4.25 What should CMOs consider prior to signing off on the deployment or adoption of a MAM system? A brand resource management system?
- 4.26 What should chief production officers (CPOs) consider before selecting a MAM solution to deploy?
- 4.27 How can a firm quickly develop a consensus for what kind of DAM solution to deploy? How does a firm determine critical functions and services required?
- 4.28 Upon deploying a MAM solution, what issues characterize the start-up process for most firms?
- 4.29 What strategies should MAM-using firms consider for maximizing their return on investment?
- 4.30 How do MAM power-user firms maximize their strategic, competitive advantage?

C DAM MARKET FORECASTS

- 4.32 What trends and developments characterize the global DAM market?
- 4.33 Which subgroups for hardware, software, and services contribute to the global DAM market?
- 4.34 What trends and developments characterize the European DAM market?
- 4.35 Which subgroups for hardware, software, and services contribute to the European DAM market?
- 4.36 What trends and developments characterize the North American DAM market?
- 4.37 Which subgroups for hardware, software, and services contribute to the North American DAM market?
- 4.38 What trends and developments characterize the Pacific Rim DAM market?
- 4.39 How large is the DAM market in the Pacific Rim?
- 4.40 What trends and developments characterize the DAM market in the rest of the world?
- 4.41 Which subgroups for hardware, software, and services contribute to the DAM market in the rest of the world?
- 4.42 What trends and developments characterize the U.S. DAM market?
- 4.43 Which subgroups for hardware, software, and services contribute to the U.S. DAM market?
- 4.44 What distinguishes brand resource management from digital asset management?
- 4.45 How must a firm’s IT computing infrastructure evolve to accommodate multichannel commerce?

D DIGITAL ASSET MANAGEMENT SOLUTION VENDORS

- 4.48 What companies offer digital asset management solutions?

E KNOWLEDGE ASSET MANAGEMENT SOLUTION PROVIDERS

- 4.54 What companies offer knowledge management solutions?



DIGITAL ASSET MANAGEMENT (CONT.)

F BUSINESS CASE AND RETURN ON INVESTMENT FOR DIGITAL ASSET MANAGEMENT

- 4.64 What is a business case?
- 4.65 How does a business case frame an IT investment to define the scope and speed of payback?
- 4.66 What are the key elements of a business case for digital asset management?
- 4.67 What return on investment has the NFL Photo Library realized from its brand resource management system?
- 4.68 What return on investment has Hubert, a catalog commerce supplier to the grocery industry, realized from its brand resource management system?
- 4.69 What are the implications for integrated marketing in a multichannel world?
- 4.70 What mix of knowledge workers, performing what tasks, characterizes a large catalog operation?
- 4.71 What kinds of savings can a large catalog operation expect from a DAM solution deployment?
- 4.72 What mix of knowledge workers, performing what tasks, characterizes a small prepress house?
- 4.73 What kinds of savings can a small prepress house expect from a DAM solution deployment?
- 4.74 What mix of knowledge workers, performing what tasks, characterizes a global Web developer?
- 4.75 What kinds of savings can a global Web developer expect from a DAM solution deployment?



I OVERVIEW OF ECONOMIC DATA

A WORLDWIDE INDUSTRIAL OUTPUT AND POPULATIONS

- 1.8 Populations of major markets by region 1991–1998
- 1.9 Major country populations 1991–1998
- 1.10 Populations of major markets by region 1999–2005
- 1.11 Major country populations—1999–2005
- 1.12 Gross domestic product by region 1991–1998
- 1.13 Major country gross domestic products 1991–1998
- 1.14 Gross domestic product by region 1999–2005
- 1.15 Major country gross domestic products 1999–2005
- 1.16 Worldwide gross domestic product by industry group 1991–1998
- 1.17 Worldwide gross domestic product by industry group 1999–2005
- 1.20 Worldwide knowledge-based expenditures 1991–1998
- 1.21 Worldwide knowledge-based expenditures 1999–2005
- 1.24 Worldwide solution-based expenditures 1991–1998
- 1.25 Worldwide solution-based expenditures 1999–2005

B EUROPEAN INDUSTRIAL OUTPUT AND POPULATIONS

- 1.30 Selected European populations 1991–1998
- 1.31 Selected European populations 1999–2005
- 1.32 Gross domestic product for Europe 1991–1998
- 1.33 Gross domestic product for Europe 1999–2005
- 1.34 European gross domestic product by industry group 1991–1998
- 1.35 European gross domestic product by industry group 1999–2005
- 1.36 European knowledge-based expenditures 1991–1999
- 1.37 European knowledge-based expenditures 1999–2005
- 1.38 European solution-based expenditures 1991–1998
- 1.39 European solution-based expenditures 1999–2005

C NORTH AMERICAN INDUSTRIAL OUTPUT AND POPULATIONS

- 1.42 North American populations 1991–1998
- 1.43 North American populations 1999–2005
- 1.44 North American gross domestic product 1991–1998
- 1.45 North American gross domestic product 1999–2005
- 1.46 North American gross domestic product by industry group 1991–1998
- 1.47 North American gross domestic product by industry group 1999–2005
- 1.48 North American knowledge-based expenditures 1991–1998
- 1.49 North American knowledge-based expenditures 1999–2005
- 1.50 North American solution-based expenditures 1991–1998
- 1.51 North American solution-based expenditures 1999–2005

D. PACIFIC RIM INDUSTRIAL OUTPUT AND POPULATIONS

- 1.55 Pacific Rim populations 1991–2005
- 1.56 Pacific Rim gross domestic products 1991–1998
- 1.57 Pacific Rim gross domestic products 1999–2005
- 1.58 Pacific Rim gross domestic products by industry group 1991–1998
- 1.59 Pacific Rim gross domestic products by industry group 1999–2005
- 1.60 Pacific Rim knowledge-based expenditures 1991–1998
- 1.61 Pacific Rim knowledge-based expenditures 1999–2005

- 1.62 Pacific Rim solution-based expenditures 1991–1998
- 1.63 Pacific Rim solution-based expenditures 1999–2005

E INDUSTRIAL OUTPUT AND POPULATIONS IN THE REST OF THE WORLD

- 1.66 Rest of World populations 1991–1998
- 1.67 Rest of World populations 1999–2005
- 1.68 Gross domestic products of the Rest of the World 1991–1998
- 1.69 Gross domestic products of the Rest of the World 1999–2005
- 1.70 Rest of World gross domestic product by industry group 1991–1998
- 1.71 Rest of World gross domestic product by industry group 1999–2005
- 1.72 Rest of World knowledge-based expenditures 1991–1998
- 1.73 Rest of World knowledge-based expenditures 1999–2005
- 1.74 Rest of World solution-based expenditures 1991–1998
- 1.75 Rest of World solution-based expenditures 1999–2005

F U.S. INDUSTRIAL OUTPUT AND POPULATIONS

- 1.79 United States growth rates and populations 1991–2005
- 1.80 United States GDP growth rate and size 1991–1998
- 1.81 United States GDP by industry group 1991–1998
- 1.82 United States GDP growth rate and size 1999–2005
- 1.83 United States GDP by industry group 1999–2005
- 1.84 United States workforce by industry group
- 1.85 United States Consumables group expenditures 1991–2005
- 1.86 United States Consumables group industry populations 1991–2005
- 1.89 United States Education group expenditures 1991–2005
- 1.90 United States Education group industry populations 1991–2005
- 1.92 United States Finance group expenditures 1991–2005
- 1.93 United States Finance group industry populations 1991–2005
- 1.95 United States Government group expenditures 1991–2005
- 1.96 United States Government group industry populations 1991–2005
- 1.98 United States Information group expenditures 1991–2005
- 1.99 United States Information group industry populations 1991–2005
- 1.103 United States Infrastructure group expenditures 1991–2005
- 1.104 United States Infrastructure group industry populations 1991–2005
- 1.107 United States Medical group expenditures 1991–2005
- 1.108 United States Medical group industry populations 1991–2005
- 1.110 United States Merchandising group expenditures 1991–2005
- 1.111 United States Merchandising group industry populations 1991–2005
- 1.114 United States Resources group expenditures 1991–2005
- 1.115 United States Resources group industry populations 1991–2005
- 1.118 United States Transportation group expenditures 1991–2005
- 1.119 United States Transportation group industry populations 1991–2005
- 1.122 United States knowledge-based expenditures 1991–2005
- 1.123 United States solution-based expenditures 1991–2005

G INTERACTIVE 500

- 1.126 2001 Interactive 500



II eMEDIA MARKETSPACE

A KNOWLEDGE-WORKER POPULATIONS

- 2.4 Major World Markets total eMedia marketplace populations
- 2.5 European eMedia marketplace populations
- 2.6 North American eMedia marketplace populations
- 2.7 Pacific Rim eMedia marketplace populations
- 2.8 Rest of World eMedia marketplace populations
- 2.9 United States eMedia marketplace populations

B DIGITAL ASSET CREATOR ROLES

- 2.12 Worldwide Animation worker population with U.S. breakout
- 2.13 Worldwide Archive & Metadata worker population with U.S. breakout
- 2.14 Worldwide Audio, EFX & Music worker population with U.S. breakout
- 2.15 Worldwide Content & Web Development worker population with U.S. breakout
- 2.16 Worldwide Database & Middleware worker population with U.S. breakout
- 2.17 Worldwide Desktop Publishing worker population with U.S. breakout
- 2.18 Worldwide Digital Photography worker population with U.S. breakout
- 2.19 Worldwide Digital Video worker population with U.S. breakout
- 2.20 Worldwide Executive Management worker population with U.S. breakout
- 2.21 Worldwide General Creative worker population with U.S. breakout
- 2.22 Worldwide Marcom & Training worker population with U.S. breakout
- 2.23 Worldwide Multimedia Publishing worker population with U.S. breakout

C DIGITAL ASSET CREATOR POPULATIONS

- 2.26 Knowledge worker populations by category for Major World Markets
- 2.27 European knowledge worker populations by category
- 2.28 North American knowledge worker populations by category
- 2.29 Pacific Rim knowledge worker populations by category
- 2.30 Rest of World knowledge worker populations by category
- 2.31 United States knowledge worker populations by category

D WORKFORCE DISTRIBUTION OF DIGITAL ASSET CREATORS AND USERS

- 2.34 Knowledge worker segmentation for Major World Markets
- 2.35 European knowledge worker segmentation
- 2.36 North American knowledge worker segmentation
- 2.37 Pacific Rim knowledge worker segmentation
- 2.38 Rest of World knowledge worker segmentation
- 2.39 United States knowledge worker segmentation

E AMERICA'S TOP 2000 BRANDS

- 2.42 Brandweek Magazine ranking of the top 2000 brands in the United States in the year 2000

F TOP 500 U.S. SALES FORCES

- 2.64 Manufacturing companies ranking in the top 200 in the size of their U.S. sales force
- 2.68 Service companies ranking in the top 200 in the size of their U.S. sales force
- 2.72 Insurance companies ranking in the top 50 in the size of their U.S. sales force
- 2.73 Direct Sales companies ranking in the top 30 in the size of their U.S. sales force
- 2.74 Top 10 automotive maker U.S. sales forces
- 2.74 Top 20 automotive dealer U.S. sales forces

III BRAND RESOURCE MANAGEMENT

C BRAND RESOURCE MANAGEMENT

- 3.44 Where digital brand resources can most affect R&D
- 3.46 Where digital brand resources can most affect marketing
- 3.49 Where digital brand resources can most affect sales productivity
- 3.51 Where digital brand resources can most affect corporate support services

D BRM STRATEGIES

- 3.55 Prescribed solutions for digital asset management
- 3.57 Smart media factory strategies and practices
- 3.59 Digital asset sources and distribution options
- 3.61 Feature-function model for Web-based rough-cut pre-editing solution

F SEARCH

- 3.81 Benchmark comparison of visual search vendors

G SONIFICATION

- 3.119 Global online community to grow rapidly

IV DIGITAL ASSET MANAGEMENT

- 4.2 Projected U.S. digital asset management expenditure overview

A ECONOMICS OF DIGITAL ASSETS

- 4.8 Inventory of digital assets

C DAM MARKET FORECASTS

- 4.32 Worldwide digital asset management expenditure growth rates
- 4.33 Worldwide digital asset management expenditures 1991–2005
- 4.35 European digital asset management expenditures 1991–2005
- 4.37 North American digital asset management expenditures 1991–2005
- 4.39 Pacific Rim digital asset management expenditures 1991–2005
- 4.41 Rest of World digital asset management expenditures 1991–2005
- 4.43 United States digital asset management expenditures 1991–2005

D DIGITAL ASSET MANAGEMENT SOLUTION VENDORS

- 4.48 Digital asset management solution vendors

E KNOWLEDGE ASSET MANAGEMENT SOLUTION PROVIDERS

- 4.54 Knowledge asset management solution providers



METHODOLOGY DESCRIPTION

GISTICS and its data-collection partner, NextQuarter LLC, developed this report from four sources:

1. Database of 250,000 users of media-related technologies.
2. Secondary research data published by the United Nations, the International Monetary Fund, the CIA World Fact Book, and U.S. government agencies.
3. Surveys of digital asset management users profiling their roles, activities, practices, and tasks as well as ranking several hundred system features.
4. Surveys (250,000) distributed by mail as well as at trade shows (5,000) and at vendor-sponsored road show seminars.

Together, this data forms our industry database of early adopters and best practices for a variety of media-related technologies, with a focus on digital asset management.

Since 1986, GISTICS has collected more than 40,000 surveys of end-use buyers (individuals in one of 5,017 knowledge-worker roles) and 15,000 organizations involved in the production or use of media.

As a data-collection and information-services firm, NextQuarter profiles best practices among producers, users, and consumers of media, tracking in particular those individuals and organizations that have mastered some aspect of digital media development and thus produce smart media.

The term *smart media* relates to any unique or specialized practice that supports the creation, management, reuse, or distribution of digital media at significant cost or time savings when compared with industry averages.

Smart media emphasizes “rich” data types (photos, illustrations, video, audio, and animation); it also includes “thin” data types (text files, Web graphics, software program instructions) and “compound” data types (documents, motion pictures, CAD drawings, and educational curricula).

ACTIVITY MODEL

The principals of NextQuarter employ an activity-based research methodology—developed and refined since 1983—that characterizes the activities of a knowledge worker’s typical day. Development of this activity model entails the extraction of historical data from 250,000 database records, 55,000 individuals/functional titles, and 5,000 unique knowledge-worker roles. A

set of relational metrics enables NextQuarter to isolate discrete variables related to individual actors’ roles and responsibilities, compensation, hours worked, organizational type (solo contractor, small workgroup, small business or division within a large business, large business, or global enterprise), software tools used, file management practices, and other activity categories.

MARKET GROWTH PERSPECTIVES

We believe that overall industry growth reflects successful customers that have met or exceeded their requirements for return on investment and satisfaction.

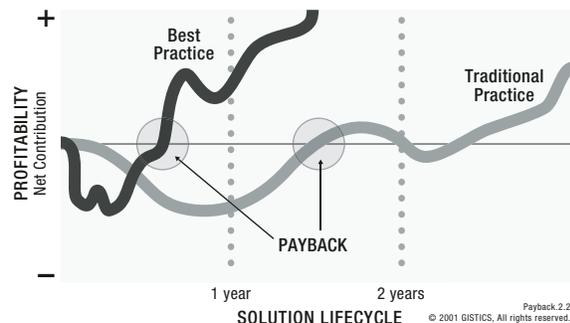
To this end, GISTICS facilitates the buying process for end-use enterprises, offering a range of products and services that recommend a set of best practices developed from extensive end-user research. Our offerings include white papers and vendor reports as well as onsite workshops and conference programs.

In addition, GISTICS directs vendors to follow a set of complementary best practices for finding and serving customers. Our vendor offerings include industry reports, custom white papers, regional seminars, and onsite workshops for executives and staff.

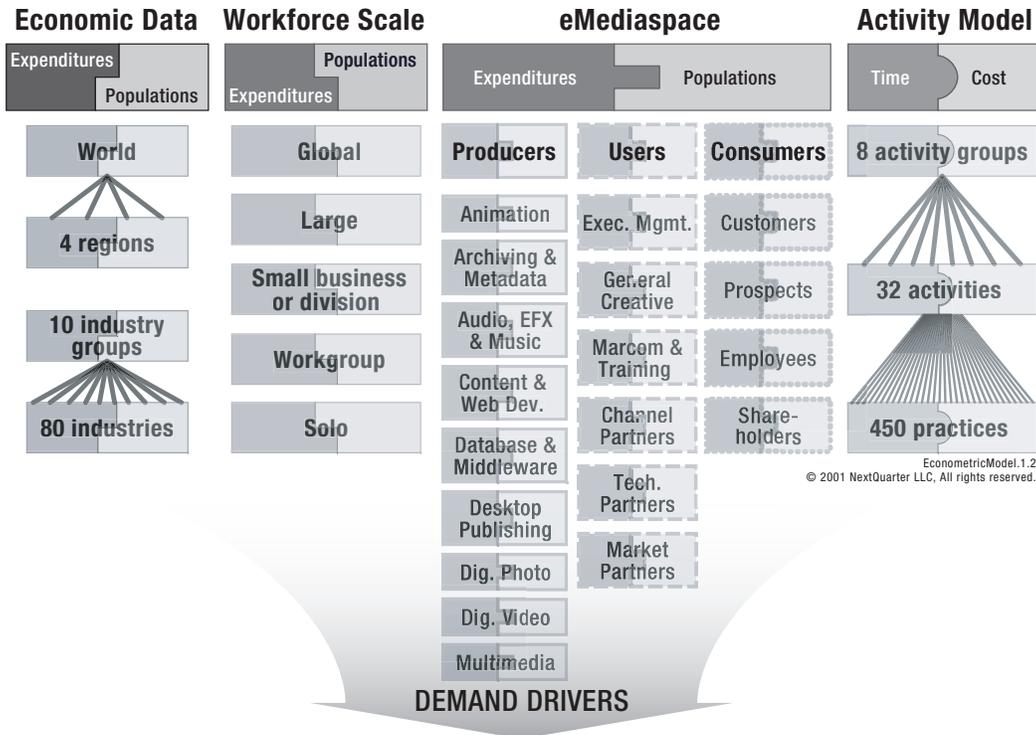
NextQuarter LLC provides data collection and analysis to its publishing partner, GISTICS, as well as to technology vendors and end-use buyers. NextQuarter specializes in the critical fields of strategic benchmarking, business-process modeling, workflow analysis, activity analysis of knowledge workers, and activity-based return-on-investment calculators.

End-use buyers may engage NextQuarter to perform predeployment and quarterly post-deployment benchmarks of a solution, measuring progress toward established productivity and financial milestones. NextQuarter uses a unique activity-based data model that it has developed over hundreds of engagements spanning 18 years, from 1983 to the present.

VENDORS FAIL TO FOLLOW BEST PRACTICES FOR INTEGRATED MARKETING



ECONOMIC, POPULATION, AND OCCUPATIONAL DATA FROM PUBLIC SOURCES COMBINED WITH ACTIVITY-BASED SURVEY DATA



CURRENT PUBLICATIONS

UNLOCKING THE VALUE OF THE DIGITAL MASTER

Strategies for accelerating the time to market and reducing the cost of promotional messages, multichannel brand resources, and print and online publications.

Business case and selection criteria for deploying enterprise-class digital asset management (DAM) systems in advertising, distribution, entertainment, manufacturing, professional services, publishing, and telecommunications. (14 pages, published Spring 2002, \$295 US)

BUSINESS CASE FOR BRAND RESOURCE MANAGEMENT

Strategies and metrics for managing brands across multiple channels, markets, and media

Summary of best practices for accelerating time to market of branding messages and digital goods, time to synchronize for brand resources to maximize effect at points of purchase, and time to customize branding messages or digital goods for channel partners, localized markets, and customer groups. (25 pages, published Spring 2002, \$295 US)

MARKET REQUIREMENTS FOR VISUAL SEARCH

How visual search solves the inadequacy of text-based search for users of the Web and corporate networks

Management advisory analyzing the impact of visual search on general Web use, e-commerce applications, online shopping, student research projects, peer-to-peer trading communities, media asset management, medical imaging diagnosis, ringtone sales to mobile phone users, and wireless location-based e-services. (54 pages, published Summer 2001, \$295 US)

DIGITAL ASSET MANAGEMENT MARKET REPORT 2002

Comprehensive assessment of markets, demand drivers, customer requirements, trends, solutions, and vendors

This report contains trends and forecasts for 1991 to 2005:

- Population and expenditure data for worldwide, 4 major regions, and 57 select countries
- 8 industry groups and 80 industries
- 12 asset producer and user types, 5 levels of workforce scale, and 8 work activity groups
- Knowledge-based and solution-based (IT) expenditures
- Hardware, software, and service expenditures for digital asset management
- Directory listings of the following:
 - 616 DAM solution providers
 - 1246 knowledge asset management solution providers
 - Top 500 US eCommerce firms (online sales from 2001)
 - Top 500 US sales forces
 - Top 2000 US brands

(426 pages, published Spring 2002, \$5,995 US)

GISTICS Incorporated
6601 Shellmound St.
Emeryville, CA 94608
www.gistics.com
510 594 9674 tel
510 601 0563 fax



Executive Order Form

DAMMRcp02Bro.1.5 © 2002 GISTICS. All rights reserved.

PUBLICATION	PRICE	QUANTITY	NET
Digital Asset Management Market Report 2002	\$5,995		
Business Case for Brand Resource Management	\$295		
Market Requirements for Visual Search	\$295		
Unlocking the Value of the Digital Master	\$295		

SATISFACTION GUARANTEE
If you find that any GISTICS publication fails to satisfy you, we will promptly refund its purchase price less shipping and credit-card processing charges.

Publication SUBTOTAL	
SALES TAX	Add 8% (CA residents only)
SHIPPING	\$6 US; \$25 International
TOTAL	

SHIP TO

Name _____

Title _____

Company _____

Division/Dept. _____

Address _____

City _____

State, ZIP & Country _____

Telephone _____

Fax _____

Email _____

Signature _____

AFFIX BUSINESS CARD HERE

OPTIONAL SHIPPING SERVICES

FedEx Account No. _____

Bill Me Priority Standard 2-day

UPS Account No. _____

Bill Me Overnight 2-day

FedEx and UPS will not deliver to PO boxes.
PLEASE NOTE: GISTICS ships all documents via USPS Priority Mail unless you request a FedEx or UPS service by selecting an option above.

PAYMENT METHOD

Check Enclosed

Bill my organization — PO # _____

Charge my VISA MasterCard American Express

Card # _____ Expires _____

FAX 510 601 0563
MAIL GISTICS Incorporated
 6601 Shellmound St.
 Emeryville, CA 94608 USA

ORDER
ONLINE www.gistics.com

OR CALL 510 594 6974

Please provide your signature even if you are not using a charge card.

NOTE: Purchaser acknowledges that all publications remain copyrighted property of GISTICS, prohibiting any copying or reproduction of a GISTICS paper. Purchaser also acknowledges that he/she has purchased this publication solely for use at his/her own location and within his/her own organization. This acknowledgement prohibits redistribution of any material outside the purchaser's own location or organization without the express permission of GISTICS Incorporated.

OrderForm2002.Q2.1.0





GISTICS

6601 Shellmound St.
Emeryville, CA 94608