After showing some signs of slowing down, the library automation marketplace posted another record-high 395 systems installed worldwide

Automated System How We Counted Market Share In reviewing the results of the 1989 marketplace, readers should be aware of the following conventions used during the analysis: • When the authors determined that vendors had count-

• When the authors determined that vendors had counted libraries sharing a system as multiple automated systems, adjustments were made to maintain consistency.

and the second second second second

• Although the use of microcomputers by libraries for circulation, online catalogs, and for technical services activities is important, this article focuses on multiuser integrated library systems. Microcomputer-based systems are not included in the analysis portion of the article.

 In combining prior year totals to the annual 1989 installations presented for 1989, certain vendors' totals for 1989 may look incorrect. It is important to note that the authors adjusted the total instal-

added a start and the

1 84 942

By Robert A. Walton & Frank R. Bridge

Joint Ventures

The authors have presented (or some would say, continue to

fail to present) estimates of the financial stake of library automation vendors. As if to maintain a tradition of years gone by

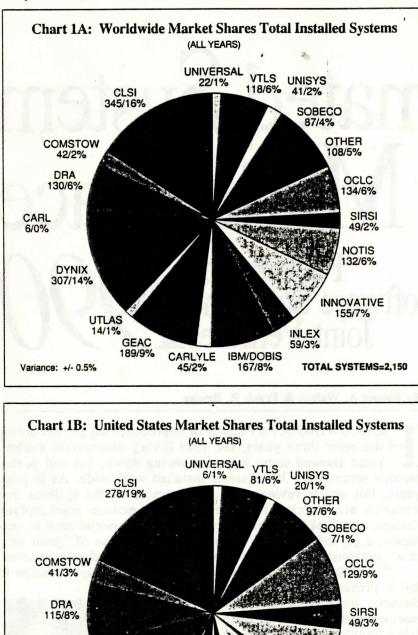


formation on revenue sources for publication, this marketplace analysis is based upon a count of the installed systems (whether or not they serve single or multiple libraries).

Some critics have said, "Exclude those vendors who don't release financial data from the next analysis." But then we could only report on four vendors. Not much of an analysis there, so let's take another walk through the annual market share patterns as defined by installations.

Flattening growth? Yes!

In the 1988 marketplace analysis ("Automated System Marketplace 1988: Focused on Fulfilling Commitments," LJ, April 1, 1989, p. 41-52), the annual growth of the number of systems slowed from a growth rate of 55 percent during 1987 to 16 percent



during 1988. Even though 1989 set another record for total systems installed (with 35 installations more than the 360 systems installed during 1988), the overall annual growth was only nine percent. As the overall marketplace grows larger, the annual percentage of increased installations continues to flatten.

The question must be asked, "Are libraries losing some interest in library automation?" While there is a flattening in the percentage of annual installations growth, there is no evidence to support a slowing trend among institutional library consumers. Regardless of library interest in investing in the use of technology, the current vendor community can only manage to grow and install a defined number of sales each year. Several of the more popular vendors have now hit the practical realities of double-digit growth and expansion: qualified technical staff are more difficult to find, there are too many Request for Proposals to answer, and the coordination problems of too many simultaneous installations expose the company's reputation to increasing risk.

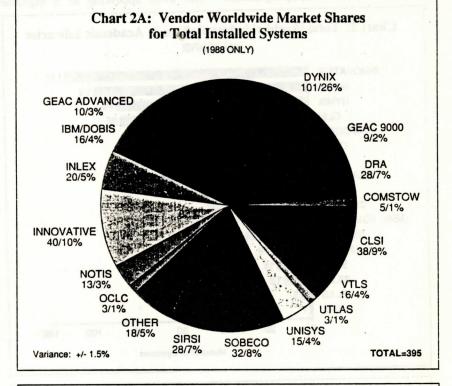
Under these circumstances, most vendors focus on market segments in which they have an advantage and a better track record than their competitors. A few firms have continued to add large numbers new staff and continue to attack with vigor every sales opportunity. But historic positive user impressions of some of these firms have declined as library staff encounter new vendor faces in every meeting with the vendor staff. Many of the "tried and true" quality controls that were part of the company's early "corporate culture" are more difficult to maintain among newer and less-experienced staff. One firm continues to emphasize sales, but simply places the reality of installation delays on the consumer's shoulders. Should a decision be made today to purchase this popular system, the actual installation date for the project will be set for the second guarter of 1991, at the earliest. Complications of data coning expansion in these foreign arenas [see "Australia: Going Online Down Under," p. 62]. Dynix, Inlex, CLSI, VTLS, and others increasingly pushed the sale of automated systems overseas, and foreign-based companies such as Geac and Sobeco (Multi-LIS) continued to try to move into the U.S. marketplace. In looking at the marketplace patterns for 1989, the tremendous growth of the overseas marketplace tends to skew the view of what is happening here at home.

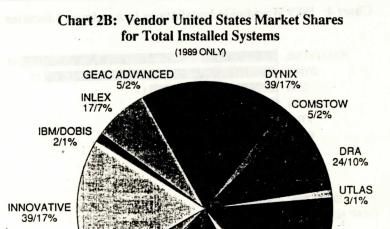
Perhaps the time has come to adjust the view of vendor market shares based upon the location of those installations. Why? Is this another example of American xenophobia or an attempt to perform "foreigner bashing"? No, one of the primary purposes of this annual analysis is to answer the question, "What are my neighbor institutions buying?" For most libraries the use of the term "neighbor" is an expression of interest in what other U.S. institutions are doing, libraries that have similar funding patterns, system maintenance problems, legal precedents, and clientele. But rather than argue the point, this year's analysis presents both market share findings: what happened worldwide and what happened the United States.

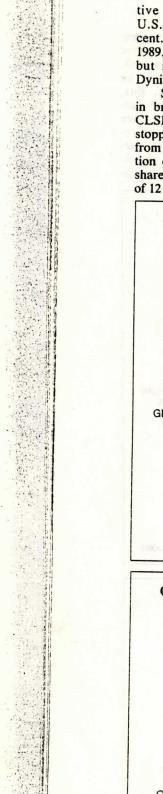
Chart 1A presents the worldwide market shares for total systems installed for all years. Chart 1B presents the U.S. market shares for total installed systems for all years. Considering the large base of installations examined, where a change of even one percent means a difference of a large number of installations, many of the market shares show some shifting patterns. Those vendors whose overall installations are heavily foreign, such as Geac, IBM, and Sobeco, showed smaller total historical market share when looking only at the United States. Geac's 14 percent worldwide market share drops to six percent for U.S. only and Sobeco, a Canadian-based firm, shows a large drop from four percent worldwide to barely one percent in the United States. Perhaps most surprising,

when looking at 1989-only installations. Many impressions of the "bigger" library automation players must now be reexamined. Chart 2A presents the worldwide market shares for systems installed during 1989. Chart 2B presents the United States market shares for systems installed during 1989 only.

In looking at worldwide 1989 installations, Dynix once again shows a clear lead by capturing a 26 percent market share, up over the 21 percent record set by the company in 1988. The world view continues to be strongly focused on Dynix. But, when focusing on the U.S. 1989 marketplace activity, the market share for Dynix drops, to a still very respectable 17 percent U.S.-only market share. What makes this significant is that another vendor, Innova-







tive Interfaces Inc., also posts a U.S.-only market share of 17 percent. For U.S. installations during 1989, there is no longer a clear leader, but instead a dead heat between Dynix and Innovative for first place.

Several other surprises surfaced in breaking out U.S. installations. CLSI, now under new management, stopped licking its wounds resulting from what had been an annual tradition of losses and declining market share and instead posted installations of 12 percent for 1989, up significant-

DYNIX

NOTIS

VTLS

SIRSI

CLSI

UNISYS

SOBECO

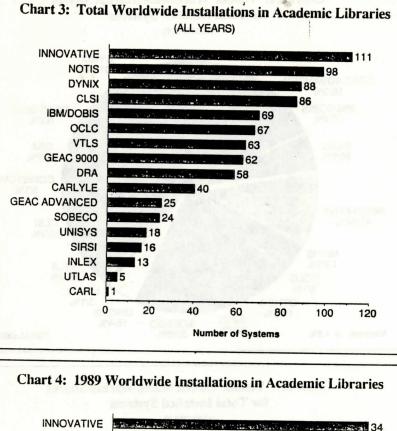
IBM/DOBIS

DRA

ly from an all-time low of six percent (worldwide) during 1988. Data Research Associates (DRA) showed much improvement during 1989 in the U.S. marketplace by posting annual installations of ten percent, slightly higher than its worldwide share (which is appropriate given that foreign sales are not really the focus of DRA's marketing efforts).

In looking at the changes that surfaced from the U.S. analysis, Sirsi really jumps out for the first time. Not even appearing as a separate

7 - Healen 31



13 ster - 13

sinaisana 10

hand which in the state of 10

Juimined 9

8

the province 7

6

market segment during prior years. Sirsi accelerates into a very respectable market share position in both the worldwide and U.S. market shares. During 1989, "new kid on the block" Sirsi posted annual installations the were almost equal with "eld CLSI, each company showing a 12 percent U.S. market share. Finally, by analyzing worldwide and U.S. patterns separately, it is clear that Inlex and VTLS compete equally in the worldwide arena, with annual installations of five percent and four percent, respectively. But in the United States, Inlex (seven percent) more than doubled its installations, enabling the company to move ahead of VTLS (three percent) as the dominant, domestic, Hewlett-Packard solution.

Software-only sales

Libraries are showing increased interest in "software-only" system acquistions. But what is a "softwareonly"-type sale? Traditionally, libraries have invested in the turnkey automation solution. The turnkey solution draws the analogy from the operation of a car where the consumer simply gets in and "turns the key," not knowing or caring how the car operates or is designed. Similarly, libraries have traditionally attempted to install automated systems that lowed them to "turn on the system. without the necessity of having experienced technical or programming personnel on staff. In the turnkey environment, the vendor selects a hardware platform, develops the software, and sells this system's package to the library with the related installation, training, and maintenance services that are necessary to make the automation project a success. Until recently, almost all of the systems installed in libraries were turnkey solutions.

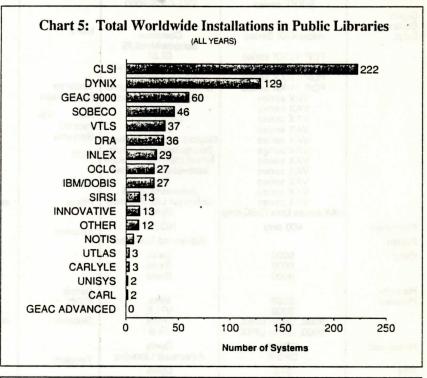
Marketplace activity in 1989 demonstrated that software-only sales are increasing in popularity. Academic libraries are interested in having their automated library system as an interactive partner on the campuswide computing network. Public liand main memory. Libraries want to see links among their local area networks, allowing users of MS-DOS and Macintosh workstations to communicate interactively with the automated library system.

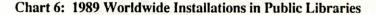
All of these demands for increased access and control over the automated library system frustrate many industry vendors. Some firms long for the "good ole days" when librarians behaved properly, gently handling the automated system as if it were a precious and fragile technology. This antiquated view of library automation encouraged librarians to fear an "open" system as if they should be in fear that dangerous emissions would spew out if an activist librarian wanted a look inside, or that expecting a system to do more than substitute for the card catalog or check-out books would create "system stress" resulting in years of degraded performance and corrective therapy. As we enter the 1990s, with inexpensive and powerful technologies such as image technology, 4GLs (fourth-generation programming languages), and artificial intelligence, many marketplace offerings and consumer behavior patterns continue to mirror the 1970s when investing in automation was risky and complicated.

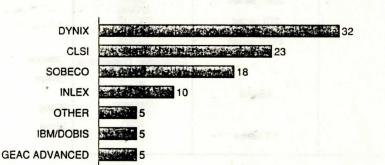
Some librarians, however, want more control and influence over their investments in technology. This vision includes the linking of all microcomputers to the integrated library system, the sharing of proprietary CD-ROM database subscriptions by multiple public access workstations, and the creation and offering of home-grown databases for patron consumption. For many libraries, the traditional automated library system will serve as a foundation (rather than the primary focus) for a larger network of information technologies and services.

"But, if you want control of your system, we won't be totally responsible for systems performance and reliability." This is the legitimate rallying cry of much of the vendor markethas been to accept this challenge. By "chipping away the wall" of the closed-system architecture, increasingly the library community seems more accepting of the responsibilities that go with operating in an "open" system environment. Librarians are accepting the challenge.

More vendors are selling software-only licenses to libraries. CARL, Inlex, NOTIS, and VTLS routinely sell their systems as a "joint venture" with the hardware manufacturer upon whose hardware platform their system operates. Both Inlex and VTLS team up with local HP staff to provide a joint hardware and software solution for the library. NOTIS provides its software to operate on an existing IBM mainframe, or will assist the library in working with the local IBM office to configure and install the correct hardware resources to properly operate the NO-TIS system. CARL provides its software to operate on Tandem-based hardware platforms. While these vendors may get a "cut" of the profit







Altos 2000 CLSI Immunacultation Indext Indext <thindext< th=""> <thindext< th=""> <thindext< th=""><th></th><th>Alter COLLA DISK MOTIO</th><th></th><th></th><th></th><th></th></thindext<></thindext<></thindext<>		Alter COLLA DISK MOTIO				
Andahi AndahiallNOTIS (continued)Gontinued) (continued)System 3X (continued)CDM (continue	Manufacturer Model		Vendor	Manufacturer	Model	Vendor
Andahl ARitx all all NOTIS Innovative interfaces Continued) System 3x Gateway CDM NSX Citoh Control Data Convergent Technologies 50 through 550 Omega series only 180 series Advanced Libraries NOTIS Innovative Notice Innovative Interfaces Innovative Notice Innovative Notice INNOVACQ Innovative Innovative Convergent Technologies Tab series OCLC-LS/2000 OCLC-LS/2000 Magnason SobecofMullLIS all NOTIS Data General Digital Equipment Corp. MicroVAX Series Comstow SobecofMullLIS CLS MIPS M/120-M/2000 SobecofMullLIS CLS PDP 11/XX series PDP 11/XX series Comstow SobecofMullLIS CLS MiPS Multorola Four-Phase 311 & 312 only NOT VAX series VAX series Constow VAX series Data Trek VAX series Data Trek VAX series Motorola SobecofMullLIS Motorola Systems all NOT Four-Phase 311 & 312 only NOT SobecofMullLIS	Altos	2000	CLSI	IRM	on white act doing white	
ARIX all Innovative Interfaces Soft mough 550 Ornega series only 180 series Sirsi Advanced Libraries Information Dimensions Innovative Intel INNOVACQ Innovative INNOVACQ Citoh Conrega series only 180 series MOTIS Information Dimensions Intel DPX Cathy NSC Data General UNIX MVXXX series OCLC-LS/2000 OCLC-LS/2000 Douglas any w/PICK oper. system Advanced Innovative Digital Equipment Corp. microVAX Series Cornstow SobecoMultiLIS PDP 11/XX series Constow SobecoMultiLIS CLCLS/2000 MIPS M120-M/2000 Sobecom Sobecomultiversity OCLC-LS/2000 PDP 11/XX series VAX series Constow Cornstow Cornstow VAX series Motorola Four-Phase Motorola Sobecomultiversity OCLC-LS/2000 Motorola Four-Phase 311 & 312 only NOT VAX series VAX series DRA Georgetown University VAX series DRA Sobecomultiversity VAX series Motorola Four-Phase all NOT VAX series VAX series Galeex Sobecomultive Interfaces Not NOT Sequent 8 21 CLS VAX series VAX series Galoo Georgetown University VAX series Not Not Not Formation 400 only NOTIS Not Sequent 8 21 CLS Four-Phase 311 & 312 only Not Not Not F			NOTIS			CDMS
Automatic ail Strit Strit Innovative INNOVACQ Innovative Control Data Omega series only 180 series NoTIS Innovative INNOVACQ Innovative Convergent 180 series Innovative Interfaces Innovative Interfaces Innovative Interfaces Innovative Interfaces Innovative Interfaces MVXXXX series OCLC-LS/2000 Douglas any w/PICK oper. system Advanced Digital Equipment microvAX Series Comstow Sobeco/MultiLIS all Dyn PDP 11/XX series Constow Sobeco/MultiLIS Motorola all Dyn PDP 11/XX series Constow Sobeco/MultiLIS Motorola all NOT VAX series Gayord Libraries Ornstorek Draft Systems all NOT VAX series Gaorgetown University NAtt. Advanced Libraries Sobeco/MultiLIS Not Sobeco/MultiLIS Not Sobeco/MultiLIS Not Sobeco/MultiLIS Not Sobeco/MultiLIS Not Sobeco/MultiLIS <td< td=""><td>A LOUGH AND AND A REAL OF A</td><td>and have been a standard and the standard standard</td><td>Innovative Interfaces</td><td>NUMBER OF THE OWNER</td><td>Gateway</td><td>BroData</td></td<>	A LOUGH AND AND A REAL OF A	and have been a standard and the standard	Innovative Interfaces	NUMBER OF THE OWNER	Gateway	BroData
Citoh Control Data Gonvergent Technologies all UNIX So through 550 (necreated libraries NoTIS Advanced Libraries NoTIS Innovative INNOVACQ Innova Innovative Distal Bul UNIX Convergent Technologies all UNIX Innovative Interfaces (NCL-LS/2000 Innovative Innovative <td></td> <td>and the second second</td> <td></td> <td></td> <td>number of the second of the</td> <td>NSC</td>		and the second			number of the second of the	NSC
Control Data Convergent Technologies all UNX Data General Digital Equipment Corp. Digital Equipment Digital D	C.Itoh	50 through 550	Advanced Libraries	lan availan	ININOVACO	Innovative
Convergent Technological all UNX all W/XXXX seriesInterfaces OCLC-LS/2000IntelUPX Manuson Magnuson Magnuson Magnuson Magnuson Magnuson any wr/PICK oper.systemAdvance Advanced DouglasDigital Equipment Corp.microVAX Series PDP 11/XX series PDP 11/XX seriesComstow Sobeco/MultiLIS CLSI Georgetown University OCLC-LS/2000MIPSMIPSMI20-M/2000Sobeco/MPDP 11/XX series VAX seriesComstow Sobeco/MultiLIS CLSI CLSIGeorgetown University OCLC-LS/2000ailDynPDP 11/XX series VAX seriesComstow ComstowMotorola Four-Phase311 & 312 onlyNOTVAX series VAX seriesGaylord Libraries Sobeco/MultiLISMotorola VAX seriesTower 32/200-850SirsVAX series VAX series VAX seriesGaylord Library Systems Sobeco/MultiLSNCRTower 32/200-850SirsFormation Fujitsu Georgetown University VAX series VAX seriesNOTIS Sobeco/MultiLSSequentB 21 Sobeco/MultiLSCLSI SequentFormation Fujitsu Geace400 onlyAdvanced Libraries Sobeco/MultiLSSequentB 21 CLSICLSI Soleco/MultiLSFormation Fujitsu Geace3000Geac SaryoSouper, system Souper, systemAdvanced CLSIFormation Fujitsu Geace3000Geac SaryoSequentB 21 CLSICLSI Souper, systemFormation Fujitsu Geace3000Geac SaryoSequentB 21 CLSICLSI Souper, system Sary <td>Control Data</td> <td></td> <td></td> <td>innovative</td> <td></td> <td></td>	Control Data			innovative		
Technologies all UNIX Innovative Interfaces SixXX series Magnuson SixXX series all OCLC-LS/2000 OCLC-LS/2000 Magnuson Douglas all any w/PICK oper. system Advancer Digital Equipment Corp. microVAX Series Comstow SixXX series Comstow SobecoMultiLIS Corectul SobecoMultiLIS Corectul OCLC-LS/2000 MIPS M/120-M/2000 SobecoMulti Dyn PDP 11/XX series VAX series Comstow SobecoMultiLIS Corectul VAX series Comstow SobecoMultiLIS Corectul Ouriversal Lb Systems Motorola Four-Phase 311 & 312 only NOT VAX series Carlow VAX series Comstow SobecoMultiLIS Corectul VAX series Motorola Georgetown University VAX series Motorola Four-Phase 311 & 312 only NOT Formation Fullisu 400 only Comstow VAX series NoTIS Sequent all NOT Geac Carlow 6000 Geac Geac Saryo 3000, 4000 Geac Advanced Sirisi Saryo Cyclone Ultivati Libra Formation DPS/6 Dynix 300X series Dynix Dynix Dynix <td>Convergent</td> <td>100 50105</td> <td>Information Dimensions</td> <td>Intel</td> <td>. DPX</td> <td>Carlyle</td>	Convergent	100 50105	Information Dimensions	Intel	. DPX	Carlyle
Data General Digital Equipment MV/XXXX series S/XXX series OCLC-LS/2000 OCLC-LS/2000 Douglas Duglas any w/PICK oper. system Advanced Digital Equipment Corp. microVAX Series Comstow SobecoMultiLIS PDP 11/XX series VAX series Comstow SobecoMultiLIS Georgetown University VAX series MIPS M/120-M/2000 SobecoMultiLIS all Dyn Innovation VAX series VAX series COLC-LS/2000 COLC-LS/2000 MIPS MIPS M120-M/2000 SobecoMultiLIS all Not Innovation VAX series Constow VAX series Georgetown University VAX series Motorola Georgetown University VAX series Motorola Systems 311 & 312 only NOT VAX series Gayoford Library Systems VAX series Georgetown University VAX series NCR Tower 32/200-850 Size VAX series Universal Lib. Systems VAX series SobecoMultiLIS NCR any w/PICK oper. system SobecoMultiLIS NCR Fourtation 400 only NOTIS Sequent B 21 CLS VAX series Universal Lib. Systems Sorie Sravo Geac Saryo ICON 3000, 4000 Geac Advance S 27 S27 Geact Saryo SOBocOMultiLI	Technologies	Inner stive Interferen	B RE STREAM IN	Magnuson	ali	NOTIS
Data General SiXXX series OCLC-LS/2000 OCLC-LS/2000 Dogial Sequel, Spirit Dynkt Digital Equipment Corp. microVAX Series Cornstow Sobeco/MultiLIS PDP 11/XX series Sequel, Spirit Dynkt PDP 11/XX series Cornstow Sobeco/MultiLIS PDP 11/XX series Cornstow Sobeco/MultiLIS Georgetown University OCLC-LS/2000 MiPS MiPS all Dynkt PDP 11/XX series Cornstow VXX series Georgetown University OCLC-LS/2000 Motorola Four-Phase 311 & 312 only NOT VXX series Data Trek VXX series Data Trek Cornstow Natt. Ad- vanced all NOT VXX series Caylord Libraries VXX series Sobeco/MultiLIS Natt. Ad- vanced series Sobeco/MultiLIS VXX series Sobeco/MultiLIS Nixdort all NOT VXX series Sobeco/MultiLIS Nixdort all Not VXX series Sobeco/MultiLIS Nixdort all NoT VXX series Sobeco/MultiLIS Not Sequent B 8 CLS Geac 6000 Geac Sanyo			OCI C-I S/2000		any w/PICK oper, system	Advanced Libs.
Digital Equipment Corp. Seque, Spint Spint <thspint< th=""></thspint<>	Data General			Douglas	and the second sec	
Corp.microVAX SeriesComstow Sobeco/MultiLUSmicromicroVAXmicromicroVAXPDP 11/XX seriesGeorgetown University OCLC-LS/2000ailDynPDP 11/XX seriesGeorgetown University OCLC-LS/2000Motorola Four-PhaseailDynPDP 11/XX seriesAdvanced Libraries ComstowMotorola Four-Phase311 & 312 onlyNOTVAX seriesComstowNatl.Ad- vancedailNOTVAX seriesGaorgetown University VAX seriesNatl.Ad- vancedailNOTVAX seriesGaorgetown University VAX seriesNatl.Ad- vancedailNOTVAX seriesGeorgetown University VAX seriesNatl.Ad- vancedNCRTower 32/200-850SirsiVAX seriesSobeco/MultiLIS VAX seriesNixdorfailNOTNOTVAX seriesSobeco/MultiLIS VAX seriesNixdorfailNOTVAX seriesUniversal Lib. Systems DynixNixdorfailNOTFormation400 onlyNOTIS Advanced LibrariesSequentB 21 S 27 S 21CLS CLSGeac6000GeacS 381 CLSCLS S 811CLS DynGeorgetownNoticsNixdorfailDynPackard3000VTLS S 3000Sequeiaany w/PICK oper. system S 21HoneywellDPS/6Dynix NOTISCycloneUtil TASHoneywellDPS/6Dynix NOTISTandem <td< td=""><td></td><td></td><td></td><td></td><td>Sequel, Spirit</td><td>STORES FOR DESIGN</td></td<>					Sequel, Spirit	STORES FOR DESIGN
Corp.InterfaceSobeco/MultiLIS CLSIallDynPDP 11/XX series PDP 11/XX series VAX seriesGeorgetown University OCLC-LS/S2000 VAX seriesMotorola Four-PhaseallDynPDP 11/XX series VAX seriesUniversal Lb, Systems Advanced Library Systems VAX seriesMotorola Four-PhaseallNOTVAX series VAX seriesData Trek Comstow VAX seriesNatl. Ad- vancedallNOTVAX series VAX seriesGaylord Library Systems SirsiallNOTVAX series VAX seriesGaylord Library Systems DynixNCRTower 32/200-850SirsiVAX series VAX seriesSirsiNixdorfallNOTVAX series VAX seriesSobeco/MultiLIS Universal Lib. Systems DynixNixdorfallNOTFormation Packard400 onlyNOTIS GeacSequentB 21CLS S 27CLS S 381Geac good good good good good 3000Infex CLSSequentB 21CLS S 27CLS S 381IBM370 9000, under UNIX 9900, under UNIX 9900, under UNIX 9900, under UNIX 9907, un		microVAX Series	Comstow	MIPS	M/120-M/2000	Sobeco/MultiLIS
PDP 11/XX series PDP 11/XX series VX series NOTIS Hewlett- Packard 3000 9000, under UNIX 9000,	corp.		Sobeco/MultiLIS		ail	Dynix
PDP 11/XX series PDP 11/XX seriesOCLC-LS2000 Universal Lb, Systems Advanced Libraries Comstow DRA Trek VAX seriesMotorola Four-Phase311 & 312 onlyNOTVXX series VXX seriesData Trek DRA Trek VAX seriesNatl. Caerogetown University Information Dimensions UAX seriesAdvanced Libraries SystemsallNOTVAX series VAX seriesGayloot University Information Dimensions UAX seriesNCRTower 32/200-850SirsiVAX series VAX seriesSobeco/MultiLIS Universal Lib, Systems DynixNCRTower 32/200-850SirsiVAX series VAX seriesSobeco/MultiLIS Universal Lib, Systems DynixNKdorfallNOTFormation Fujitsu Geac400 onlyNOTIS Advanced Libraries Sobeco/MultiLIS DynixSequentB 21 S 27 S 28 S 27 S 28 S 26 S 27 S 361CLS S 27 CLS S 361CLS S 27 CLS S 361Formation Fujitsu Geac6000 Geac GeacGeac S 27 S 28 S 27 S 28 S 27SequentB 21 S 27 CLS S 27 S 28 S 27 S 28 S 27 S 28 S 27 S 28 S 27 S 27 S 28 S 27 S 27CLS S 27 S 28 S 27 S 27 S 27 S 28 S 27 S 28 S 27 S 27 S 27 S 27Formation Packard400 onlyNOTIS S 28 S 27 S 27 <td></td> <td></td> <td></td> <td></td> <td>webbic the latter web.</td> <td>Innovative</td>					webbic the latter web.	Innovative
PDP 11/XX series VAX series 			OCLC-LS/2000		to look instant work at	IIIIOvauvo
VXX series VAX seriesAutomotion Data Trek DRA DRA DRA DRA DRA VAX seriesNati. Advanced Vanced SystemsNati. Advanced SystemsNati. Vanced SystemsNati. Vanced SystemsNot allVAX series VAX seriesGaylord Library Systems Information Dimensions DynixNati. Vanced SystemsallNot Sobeco/MultiLIS NCRVAX series VAX seriesInformation Dimensions DynixNCRTower 32/200-850SirsVAX series VAX seriesSobeco/MultiLIS Universal Lib, Systems DynixNixdorfallNOTFormation Fujitsu Geac400 onlyNOTIS GeacSequentB 21CLSFujitsu GeacGeac S 000Geac GeacS 81CLSGeac 9000, under UNIX 9000, Un					311 & 312 only	NOTIS
VAX series VAX series VAX series VAX series VAX series Cargetown University VAX series VAX seriesData Trek BAdvanced Libraries Sobeco/MultiLIS Vax seriesNixdorf NCRallNOT NOTIS NixdorfFormation Fujitsu Geac Geac 9000 <br< td=""><td></td><td></td><td></td><td></td><td>STI & STE SHIP</td><td></td></br<>					STI & STE SHIP	
VAX series VAX series GeacGaylord Library Systems Sobeco/MultiLIS NixdorfallNOT Tower 32/200-850Siri Sobeco/MultiLIS Not NOT B Sobeco/MultiLIS PrimeallNOT Tower 32/200-850Sobeco/MultiLIS Sobeco/MultiLIS NixdorfNixdorfallNOT Tower 32/200-850Sobeco/MultiLIS Sobeco/MultiLIS NOT B Sobeco/MultiLIS SequentNixdorfallNOT allNOT Sobeco/MultiLIS B NOTIS B SequentSobeco/MultiLIS B PrimeNixdorfallNOT allNOT Sobeco/MultiLIS B R Advance CLS SequentB 21 B 21 CLS S 277 CLS S 277 CLS S 811 CLS B 3000 CONSequentB 21 B 21 CLS S 277 S 277 CLS S 277 CLS CLS S 811 CLS B 3000 S 277 ClS CON Sirsi Sobool UCONSequentB 21 S 277 CLS CLS S 811 CLS S 277 CLS CLS S 811 CLS CON Sirsi S 277 ClS <b< td=""><td></td><td>VAX series</td><td></td><td></td><td></td><td></td></b<>		VAX series				
VAX series VAX series Universal Lib. Systems Dynix Geac Soloc (NultiLIS B 21 CLS SequentNCR all all NOT Solocer, system Solocer, Sys			DHA Gavlord Library Systems		all	NOTIS
VAX series VAX series VAX series VAX series 			Georgetown University	NCB	Tower 32/200-850	Sirsi
VAX series VAX series VAX series VAX series VAX series VAX series VAX series Universal Lib. Systems Dynix Fujitsu GeacNixdorf Sobeco/MultiLIS Primeall any w/PICK oper. system So series, EXLAdvance Dyn DynFormation Fujitsu Geac400 onlyNOTIS Advanced LibrariesSequentB 21 B 21 S 277 CLS S 277 CLS S 277 CLS S 277 CLS S 811 CLS S 811 CON CON CON S000, 4000 CON CONGeac Geac S 811 CLS S 811 CLS S 811 CLS S 811 CON CON CON CON CON S000, 4000 CON CONGeac Adv CLS S 811 CLS CON CON CON CON CON CONSequent S 8200 S 8277 CLS S 811 CLS CON CON CON CON CONSequent S 8200 S 8277 CLS S 811 CLS CON CON CON CON CONSequent S 8277 S 8277 CLS S 8277 CLS S 811 CON CON CON CONSequent S 8277 S 8277 CLS S 8277 CLS S 8277 CLS CCS CON CON CON CONSequent S 8277 S 8277 CCS S 8277 CCS CCS CLS S 8277 CON CCN CON CONNOT S CON CONNOT CON CON CON CON CON CON CONSNOT CLS <b< td=""><td></td><td></td><td>Information Dimensions</td><td>Non</td><td></td><td></td></b<>			Information Dimensions	Non		
VAX series VAX series VAX series VAX series GeacSobeco/MultiLIS Universal Lib. Systems Dynix Advanced LibrariesInternal Dynix Dynixany w/PICK oper. system So series, EXLAdvance Dyn DynixFormation400 onlyNOTIS Advanced LibrariesSequentB 21 B 8 S 277CLS CLS S 811Geac6000 8000Geac GeacSanyo ICON3000, 4000Geac Advanced S 811Hewlett- Packard3000 9000, under UNIX 9000, under UNIX 9000Sanyo Utix Sequeia3000, 4000 any w/PICK oper. system SequeiaAdvance Advanced Utix TandemHoneywellDPS/6 937X 309X seriesDynix Dynix DYnix NOTIS DOBIS DYNiX DYNIX DYNIX NOTISTandemCLX TATE CLXCAF Tacom Tacom Util Util Util Util Util Tacom Util Util Util Util Util Tacom Util Util Util Util DYNIX AdvanceUtilimate 1400,3000,6000,7000 Util UtilimateMax series AS/400Only CDMSUtilimate Utilimate1400,3000,6000,7000 UnisysDynix Utilimate				Nivdorf	all	NOTIS
VAX series Unix RISC onlyDynixDynixSo series, EXLDynixFormation400 onlyAdvanced LibrariesSequentB 21CLSGeac6000GeacS 277CLSBo000GeacS 81CLS9000InlexICON3000, 4000Geac Advanced9000, under UNIXDynixSirsiSequeiaany w/PICK oper. systemAdvanced9000, under UNIXSystemicSequeiaany w/PICK oper. systemAdvanced9000, under UNIXDynixSirsiSequeiaany w/PICK oper. systemAdvanced9000, under UNIXDynixSirsiCycloneUtterHoneywellDPS/6- DynixTandemCLXCAF1BM370DynixDynixTandemCLXCAF309X seriesInformation DimensionsTXPCAFTacom370 seriesDynixDynixVLXCAF309X seriesDynixDynixVLXCAF43XX seriesDynixInformation DimensionsVLXCAFAS/400CDMSUttimate1400,3000,6000,7000DynixNOTISVTLSUtimate1400,3000,6000,7000DynixNOTISVTLSS000 seriesDynixNOTISVTLSS000 seriesDynixAS/400CDMSCDMSS000 seriesDynixAS/400CDMSCDMSS000 seriesDynixAS/400CDMSCDMSS000 seriesDynix<		VAX series		10		
Formation400 onlyNOTIS Advanced LibrariesSequentB 21 B 8 S 27 S 27 CLS S 27 S 21 CLS CLS S 27 CLS S 27 allCLS CLS CLS S 27 S 21 CLS S 27 CLS S 21 S 21 CLS S 21 S 21 CLS S 21 CON S 2000, 4000CLS CLS CLS CLS S 21 CLS S 21 CLS S 21 S 21 CON S 2000, 4000CLS CLS CLS CLS S 21 CLS S 21 CON S 2000, 4000CLS CLS CLS CLS S 21 CLS S 21 CON S 2000, 4000CLS CLS CLS CLS S 21 CLS S 21 CON S 2000, 4000CLS CLS CLS CLS S 21 CON S 2000, 4000CLS CLS CLS CLS S 21 CON S 2000, 4000CLS CLS CLS CLS S 21 CLS CLS S 21 CON S 2000, 4000CLS CLS CLS CLS S 2000, 4000CLS CLS CLS CLS S 2000, 4000CLS CLS CLS CLS S 2000, 4000CLS CLS CLS CLS S 2000, 4000CLS CLS CLS CLS S 2000, 4000CLS CLS CLS CLS S 2000, 4000CLS CLS CLS S 2000, 4000CLS CLS CLS CLS S 2000, 4000CLS CLS CLS CLS S 2000, 4000CLS CLS CLS CLS S 2000, 4000CLS CLS CLS CLS S 2000, 4000CLS CLS CLS CLS S 2000, 4000CLS CLS CLS S		VAX series		Prime		Dynix
FunitabilityAdvanced LibrariesSequentB 21OtherFujitsuGeacGeacS 27CLSGeac8000GeacS 81CLS9000GeacSanyoallDynHewlett- Packard3000VTLSSanyoICON3000, 4000Geac Advanced9000, under UNIXDynixSequoiaany w/PICK oper. systemAdvanced9000, under UNIXDynixSequoiaany w/PICK oper. systemAdvanced1BM370DynixTandemCLXCAF309X seriesDynixTXPTacomUtta309X seriesDynixDYNVLXCAF370 seriesDynixDYNVLXCAF43XX seriesDYNDYNVLXCAFAS/400YTLSUltimate1400,3000,6000,7000DynUnisys1100,2200,PW2,U-SeriesDyn5000 seriesDynDynAS/400CDMSTINSSTacom	Formation					
Geac6000 8000 9000Geac Geac Geac Geac allS27 S81 allCLS CLS CLS allHewlett- Packard3000 3000 9000, under UNIX 9000, under UNIX 9000, under UNIX DPS/6Inlex Dynix Dynix Sirsi INSanyo ICON3000, 4000Geac Adv Dyn Advance Dynix TandemGeac Adv any w/PICK oper. system CycloneAdvance Dyn Utt Tacom Utt Tacom Utt Tacom Utt Tacom Utt TAC TacomSequoiaany w/PICK oper. system Dyn CycloneAdvance Dyn Utt Utt CycloneHoneywellDPS/6 DPS/6Advanced Libraries Dynix 307X 307X 307X 307X 309X seriesDynix Dynix Dynix Dynix Dynix Dynix Dynix DYnix DYnix DYnix NOTISTandemCLX CAF Tacom TXPCAF CAF Tacom Utt Utt Utt CAF Tacom Utt Utt Utt Tacom Utt Utt Utt Tacom Utt Utt Tacom Utt Utt Utt Tacom Utt Utt Utt Tacom Utt Utt Utt Tacom Utt Utt Utt Tacom Utt Utt DSIS Dynix NOTIS Dynix Information Dimensions NOTIS Dynix Information Dimensions NOTIS UttimateUttimate 1400,3000,6000,7000 Dyn Dyn Dyn Dyn Dynix DOBIS S000 seriesDyn Dyn Dyn Dyn Dyn Dyn Dyn DynAS/400CDMSCDMSUttimate Dyn1400,3000,6000,7000 Dyn DynDyn Dyn Dyn Dyn Dyn Dyn Dyn Dyn DynixDyn Dyn Dyn Dyn Dyn Dyn Dyn Dyn Dyn Dyn Dyn Dyn Dyn Dyn Dyn Dyn Dyn Dyn Dyn Dyn<		400 01119		Sequent	B 8	CLSI
BothBothGeacS 81 allCLS allHewlett- Packard3000Inlex 3000Sanyo ICON3000, 4000Geac Ad GeacPackard3000Inlex 3000, under UNIX 9000, under UNIXDynix SirsiSequoiaany w/PICK oper. system CycloneAdvance Dyn UttsHoneywellDPS/6- Dynix DPS/6Advanced Libraries Dynix 307X 307X seriesTandemCLXCAF TacomIBM370Dynix Dynix 307X seriesDynix Dynix Dynix Dynix Dynix Dynix Dynix Dynix Dynix DYnix MOTIS Dynix DOBIS Dynix Horomation Dimensions Dynix DYNix D		6000		TAXE	S 27	CLSI
Hewlett- Packard3000Inlex 3000Sanyo ICON3000, 4000Geac AdvPackard3000, under UNIX 9000, under UNIXDynix SirsiSequoiaany w/PICK oper. systemAdvanced DynHoneywellDPS/6 DPS/6Dynix Advanced Libraries 937XDynix Dynix DynixTandemCLXCAF TacomIBM370 937XDynix Dynix 100XX seriesDynix Dynix Dynix DynixTandemCLXCAF Tacom309X seriesDynix Dynix DOBIS Dynix Hormation Dimensions DYnix DOBIS NOTISVLXCAF TacomUtter 	Ceac	8000	Geac	JANS .		Dynix
Packard3000 3000, under UNIXIntex VTLS SequoiaICON3000, 4000Geac Adv Advance9000, under UNIXDynix 9000, under UNIXDynix SirsiSequoiaany w/PICK oper. system CycloneAdvance Dyn UtilHoneywellDPS/6- Dynix DPS/6TandemCLXCAF TacomIBM370Dynix 937XDynix NOTISEXT UtilUtil309X seriesDynix Dynix DOBIS DynixEXT TXPUtil CAF TAcom370 seriesDynix Dynix DOBIS Dynix Unformation Dimensions Dynix DYnix Hormation Dimensions NOTISUltimate1400,3000,6000,700043XX seriesDOBIS Dynix NOTIS NOTISUltimate1400,3000,6000,7000Dyn DynAS/400CDMSUltimate1100,2200,PW2,U-Series S000 seriesUnis Dyn		9000	Geac	CIMO	aii	Cynix
AdvanceBOONVTLSSequoiaany w/PICK oper. systemAdvance9000, under UNIXDynixSirsiSequoiaany w/PICK oper. systemDynix9000, under UNIXDPS/6- DynixCycloneUtterDPS/6Advanced LibrariesTandemCLXCAFIBM370DynixTandemCLXCAF937XDynixUtterUtterUtter937XOynixEXTUtter300X seriesDynixEXTUtter309X seriesDynixTXPCAF370 seriesDynixTXPTacom370 seriesDynixVLXCAF43XX seriesDOBISVLXCAFDynixDynixUttimate1400,3000,6000,7000DynixVTLSVTLSVTLSUnisys1100,2200,PW2,U-SeriesUnisAS/400CDMSVTLS5000 seriesDynix		3000	Inley	Sanyo	3000 4000	Geac Advance
9000, under UNIX 9000, under UNIXDynix SirsiDynix CycloneDynHoneywellDPS/6· Dynix Advanced LibrariesTandemCLXCAF TacomIBM370Dynix 937XDynix NOTISEXTUtta309X seriesDynix NOTISEXTUtta309X seriesDynix DOBIS Dynix 1nformation Dimensions DYnix DYnixEXTUtta370 seriesDynix DYnix DOBIS Dynix UttaVLXCAF Tacom Utta43XX seriesDOBIS DYnix NOTIS NOTISUltimate1400,3000,6000,7000Dyn UttaAS/400CDMSUltimate1400,3000,6000,7000Dyn	Packaro				THEFT YOU'D BOUNDED IN	WALL PRIME AND ADD
HoneywellDPS/6ChristCycloneUitaDPS/6Advanced LibrariesTandemCLXCAFIBM370DynixTandemCLXCAF30XX seriesNOTISEXTUtta309X seriesDynixTXPCAF309X seriesDynixTXPCAF309X seriesDynixTXPCAF309X seriesDynixTXPCAF309X seriesDynixTXPCAF309X seriesDynixTXPCAF370 seriesDOBISVLXCAF43XX seriesDOBISUtimate1400,3000,6000,7000Dyn43XX seriesDOBISUtimate1400,3000,6000,7000DynAS/400CDMSUnisys1100,2200,PW2,U-SeriesUnisy				Sequoia	any w/PICK oper. system	Advanced Libs Dynix
DPS/6Advanced LibrariesTandemCLXCAFIBM370DynixTacomUtta937XDynixNOTISEXTUtta300X seriesInformation DimensionsTXPCAF309X seriesDynixTXPTacom370 seriesDynixTXPCAF43XX seriesDOBISVLXCAF43XX seriesDynixDynixUttimateAS/400CDMSUltimate1400,3000,6000,7000DynAS/400CDMSUnisys1100,2200,PW2,U-SeriesUnisys					Cyclone	Utlas
IBM 370 Dynix Dynix Dynix Dynix Dynix Dynix Dynix Dynix Series NOTIS Information Dimensions DOBIS DYNIX TXP Tacom TXP Tacom TXP Tacom TXP TARCAR TXP TARCAR TXP TARCAR TXP TARCAR TXP TARCAR TXP TARCAR TAR	Honeywell			Tandam	CIX	CARL
937X Dynix NOTIS EXT Utlation 30XX series Information Dimensions Dynix TNSII CAF 309X series Dynix TXP CAF 370 series NOTIS VLX CAF 43XX series Dynix Dynix Tacom 43XX series Dynix Ultimate 1400,3000,6000,7000 VILS VILS Ultimate 1400,3000,6000,7000 AS/400 CDMS Unisys 1100,2200,PW2,U-Series	IBM			randem	OEA	Tacoma PL
SUCK series Information Dimensions Dynix TNSII CAF 309X series Dynix TXP Tacom 370 series NOTIS VLX CAF 43XX series DOBIS VLX Tacom 43XX series DOBIS Ultimate 1400,3000,6000,7000 Dyn AS/400 CDMS Unisys 1100,2200,PW2,U-Series Unisys		937X	Dynix		EVE	Utlas
309X series Information Dynix DOBIS TXP CAF Tacom 370 series NOTIS VLX CAF 43XX series Dynix VLX CAF 43XX series Dynix Ultimate 1400,3000,6000,7000 Dynix NOTIS VILS Ultimate 1400,3000,6000,7000 Dynix AS/400 CDMS Unisys 1100,2200,PW2,U-Series Unisy		30XX series	NOTIS	A Presti f		CARL
370 series DÓBIS NOTIS VLX Tacom CAF Tacom Utla 43XX series DOBIS Dynix Information Dimensions NOTIS VTLS Ultimate 1400,3000,6000,7000 Dyn Utla AS/400 CDMS Unisys 1100,2200,PW2,U-Series 5000 series Unisys		309X series				CARL
AS/400 CDMS Ultimate 1400,3000,6000,7000 Dyn AS/400 CDMS Ultimate 1400,3000,6000,7000 Dyn Unisys 1100,2200,PW2,U-Series Dyn 5000 series Dyn	5 F996		DÓBIS		VIX	Tacoma PL
43XX series DOBIS Dynix Ultimate 1400,3000,6000,7000 Dynix Information Dimensions NOTIS Ultimate 1400,3000,6000,7000 Dynix AS/400 CDMS Unisys 1100,2200,PW2,U-Series Unisys		370 series			VLA	Tacoma PL
AS/400 CDMS Ultimate 1400,3000,6000,7000 Dyn NOTIS Unisys 1100,2200,PW2,U-Series Unisys 5000 series Dyn		43XX series	DÓBIS		mode positions and inc	Utlas
AS/400 CDMS Unisys 1100,2200,PW2,U-Series Unis 5000 series Dyn				Ultimate	1400.3000.6000.7000	Dynix
AS/400 CDMS 5000 series Dyn		A CONTRACTOR OF THE OWNER		and calls		and and a state of the state of the
AS/400 CDMS			VTLS	Unisys		Unisys Dynix
I Wand I VS series, exc. 80 I Into Dime		AS/400			nuo - lo losteco inte-	Info Dimension
ProData			ProData	Wang	- Contraction Contraction	
				Wyse		CLSI OCLC-LS/2000

•

1.12

iter and

STATE ALLEN

lations were software-only. Given this trend, the cases of Innovative and CLSI require some additional examination. These are the two systems that are designed for and operate on he Unix operating system, undoubtedly the most universally accepted "open systems" architecture. Although Innovative had a few installations that were software-only, both firms show a strong preference for the turnkey alternative and contractually prohibit or discourage much of the user interaction with the Unix operating system.

Academic libraries

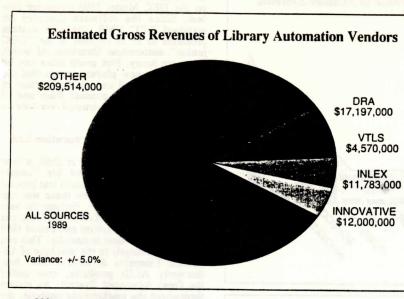
During 1989, the marketplace saw a large jump in the total number of systems installed in academic libraries in comparison with the number of installations in public libraries that has slowed considerably. The close of the Eighties also saw some obvious and important shifts in the position of academic marketplace leadership. Chart 3 illustrates the worldwide market shares for academic libraries for all years and Chart 4 focuses on the worldwide academic installations for 1989.

Innovative was the big surprise of 1989, capturing the lead position in academic libraries both in worldwide and U.S. installations. Once thought of as a specialist, technical services vendor, Innovative has now pushed NOTIS to second place in total systems installed and passed NOTIS, Dynix, IBM, and DRA for academic installations during 1989. Although Dynix didn't capture first place, the company still posted a large increase in academic installations, primarily in community colleges and junior colleges. DRA strengthened its installations in the academic marketplace during 1989, and due to the company's willingness to provide softwareonly sales, its competitiveness in the academic market will probably increase.

If a "loser" category had to be identified, it would include NOTIS and IBM/DOBIS. NOTIS suffers from the realities of academic demographics where many of the large As-

System	Release	Vendor
CDC NOS/VE	1.2.1	Information Dimensions
CICS	1913 1991	DOBIS
CICS/VS	1.6	NOTIS
CLSI Proprietary	27.45	CLSI
CMS-1100	SRIA	Unisys
DMS	8R3G	Unisys
EXEC	41R3	and the second state of the second state of the
Geos	2.7	Geac
GUARDIAN	90 XF	CARL
GUANDIAN	C series	Utlas
Indicted animal test 4		and the second se
the late and the second second	B40, C20	Tacoma Public Library
Hewlett-Packard MPE	5.0+	VTLS
Hewlett-Packard MPE-XL	all	Inlex
	1.2	VTLS
Intel RMXII	3	Carlyle
M/11+-Intersystems	3.X	Georgetown University
MIIS	5.3	LS/2000 (OCLC)
MVS-IBM/370	ALCOND ALCOND	NOTIS
MVS-IMB/SP	and the party of	DOBIS
MVS-IBM/TSO	3.7	Information Dimensions
MVS-IBM/XA	All and Aradian International	DOBIS,NOTIS
MVS/ESA	acadi. n. pho	DOBIS,NOTIS
MVX-Intersystems	3.X	Georgetown University
OS-IBM/VS1	n de- het n	NOTIS
OS/400 [IBM]	10000	Gateway
		ProData
		NSC
	18 STIDIN	CMDS
051100	200	Unisys
OS1100	3R2	CLSI
P/OS	2	
PICK	1.6	Advanced Libraries
PL/1	and shares	DOBIS
PRIMOS [oper. PICK]	in the hertest	Dynix
ULTRIX	3	Innovative Interfaces (3.1
	and a local	Information Dimensions
UNISYS OS/3	and the second	Pueblo
UNIX	27.DBMS	CLSI
	27.5	CLSI,Dynix
	System V.3	Innovative Interfaces
an al alter resolution of	5.2	Sobeco/MultiLIS
	all a state	Unisys
security to be which have haven	System V.3	Carlyle
	System V.3	MultiLIS
	System V.3	Sirsi
	System V.3	Ringgold
UNIX [oper. PICK]	System V.S	Dynix
the second se	THE PART OF	Dynix
VM-IBM [oper. PICK]	Marine Billioner	Information Dimensions
VM-IBM/CMS	600000	information Dimensions
VM-IBM/SQL	5.0+VTLS	and the set of the board of
VMS [DEC oper. PICK]	SH PRINS	Dynix
VMS [DEC] *	latest	DRA
	5	Sobeco/MultiLIS
	all	ULISYS

1



over 200 connected terminals, and databases in excess of one million (e.g., Denver Public Library, University of Colorado at Boulder, the MARMOT Consortium [17 libraries], and the Montgomery County Library System, Md.). CARL Systems, Inc. has added staff, expanded marketing, and is now a frequent bidder (and winner) of larger automation system projects. Scheduled for installation during 1990 are the Sno-Isle Library System (Wash.) and Northeastern University (Mass.). CARL just doesn't "fit" the way we count vendor performance, but don't think CARL is "small-time." It is the "smaller" vendor serving the "really big" libraries.

Carlyle Systems, Inc.

Carlyle has gone through some tough times during recent years. After surviving

DATAPOINT: Datapoint's fully functional product, Data*Library, has this year extended from its base of public libraries to special libraries, including Shell in the UK. There are now seven Data*Library sites, including the Syd-

ney Opera House's Library and Archives of the Performing Arts. Datapoint has also completed its downline loading module for copying from ABN or CD-ROM. Nonetheless, a quiet year of reassessment and gradual progress; plans for 1990

include conversion of the software to MS-DOS.

ICL AUSTRALIA: Nineteen eighty-nine was the birth-year of ICL's new library product ICL Library, with one public library site installed. The system that operates under Unix has added MARC cataloging and MARC load from tape. Further PICK and Xenix and multiuser networks, the distinction between micro- and minicomputer systems is effectively lost. Thus the small system suppliers are of interest to all those responsible for small libraries. Australia has its share of these

> suppliers, the most successful of which is SOFTLINK AUSTRA-LIA. In 1989 its MS-DOS-based Alarm/Oasis package was installed in over 150 new sites, taking its overall total to 470 systems. The system can be successfully networked, the largest

site comprising nine dedicated terminals. Thirty sites are special libraries, the rest are schools.

CONCORD DATA SYSTEMS added 31 sites in 1989, taking its total to 45; its package is called Aims/Opal and runs under MS-DOS or Xenix/Unix.

Lothlorien Software with LOTH-LORIEN has 38 sites running on MS- the reaction to what was a very disappointing circulation control module and well-publicized financial difficulties, the company has regrouped and started fresh in trying to once again "prove itself." The company has redone the circulation system, which will be based on the Ingres database management system and operate on the Unix software platform. The Carlyle focus for 1990 will be to begin rebuilding customer and library marketplace confidence.

CLSI

CLSI had a good year in 1989. For the first time in several years, the company increased installations of new systems and minimized what has been a sizable, annual erosion of its worldwide market share. While the company continues to be weak in its attractiveness to academic libraries, public libraries continue to invest in the CLSI solution, particularly its circulation system and OPAC. CLSI has designated that 1990 is the "Year of the Customer." Although the authors would hope that every year is the "Year of the Customer," CLSI has recognized and focused in on one of its most vulnerable issues, the need to provide better service and responsiveness to its existing customer base. This emphasis will manifest itself in an increased effort to complete Release 29 and in continuing to improve the Sequent Unix-based software platform.

Data Research Associates (DRA)

As discussed earlier, DRA showed strong market share growth in 1989. This was particularly true in academic libraries where DRA installed 17 systems. During 1989, the company added new marketing and sales staff, providing for expanded contacts with the library community. To date, this increased level of communication has been well received. As shown in the chart above, DRA leads the way in calling for more open disclosure of audited information about the financial stability of major automation vendors. DRA continues to be financially healthy and will remain a prominent marketplace player.

Dynix, Inc.

Once again Dynix proved that its growth could continue. As Dynix leads the pack each year, the company also becomes a popular target for negative comments by its competitors, particularly about the variety of hardware platforms supported by Dynix and its overseas marketing efforts. Rather than respond to these negative comments, Dynix continues to keep eyes focused forward and concentrates on expanding its installations in ever-growing number,



attributed to the fact that Inlex continued the difficult process of expanding its software offerings, by releasing the acquisitions module, full LC MARC authority load software, and Boolean searching. Plans for 1990 include the release of a reserve book room module and an Information & Referral subsystem.

Innovative

Innovative Interfaces, Inc. (they prefer to be called "Innovative") had its best year ever. Particularly when you examine 1989 installations in the United States (Chart 2B). Innovative tied Dvnix with 39 systems installed. What makes this particularly impressive is that Innovative is a much smaller company than Dynix (with 40 FTEs compared to Dynix's 230 FTEs), and yet its success in the United States is quite impressive. It is also important to note that this large jump in installations doesn't even include the addition of 16 online catalog systems installed (a separate product called INNOPAC) at sites that were already operating the technical services product (called INNOVACO). Because of its popularity, the Innovative installation schedule has been extended well into 1991 and it will be interesting to see how the company handles this extreme growth and whether libraries are willing to wait in line. So far, getting in line is exactly what libraries are doing, no matter how long the wait.

NOTIS

:

1

. .

tf

NOTIS continues to be the system of choice for the majority of ARL libraries, which turns out to be both a blessing and a curse. The obvious blessing is that NO- TIS remains prominent as a system for the academic community, fitting well into the campus network and centralized computer center environment. The curse is that some day, NOTIS may run out of ARL libraries. For this reason, NOTIS is poised and ready to introduce a new midrange NOTIS system, called KeyNOTIS, for small to medium-sized academic libraries. At press time, NOTIS has scheduled a briefing for automation consultants and other gurus, so most likely the new NOTIS system will receive much attention in the 1990 library automation marketplace analysis. During 1989, NOTIS introduced a new software option, the Multiple Database Access System (MDAS), which permits installations to mount databases from MEDLINE, H.W. Wilson, and Compendex Plus. As one of the open software architectures mentioned earlier, NOTIS will be one of the companies to lead the march to more open and flexible library automation solutions.

OCLC Local Systems

During 1989, OCLC retreated from the marketing of the OCLC LS/2000 product line. In reviewing the results of the marketplace survey provided by OCLC, most of the activity of the Local Systems Division was focused on the sale and support of the SC350 serials control system, which is not the primary focus of this article. Now that OCLC has focused on providing lower-end, microcomputer-based library automation services and products, 1990 will be a better measure of whether this historic library automation leader will continue to be a player in this analysis.

Sirsi

Another major surprise in 1989 was the Sirsi system, a relative newcomer to the major league marketplace. Sirsi is a Unix-based system that has been traditionally perceived as an automation alternative for smaller special libraries. No more! During 1989, Sirsi had 28 installations, with ten installed in academic libraries and 13 in public school systems. In looking at Sirsi's historic installed base, however, the product is used almost equally by public, academic, and school libraries. The company's installation success caught many competitors off guard and is another example of success based upon the introduction of an open, software-only library automation solution. During 1990, the company will turn back to the basics by upgrading the acquisitions, online catalog, and circulation modules to enable it to be even more competitive in the mainstream library automation marketplace.

Sobeco/MultiLIS

Although some marketing has taken place in the United States, Sobeco remains primarily a Canadian vendor focused on providing software solutions to Canadian libraries. During 1989, out of 32 installations for the year, only three systems were installed in the United States (and all of those were on the East Coast). Sobeco will probably continue to modestly offer its system in the United States, but its primary focus will be to continue its expansion in Canada and to move into the European marketplace.

Table 3: System Interfaces											
Vendor	OCLC	RLIN	WLN	Utlas	Biblio- File	Auto- graphics	Marcive	Baker & Taylor	Laser- Quest	Brodart	Other Interface
CARL	-	-	De L	-	-	-	10.0	-	-	-	Mini-Marc
Carlyle	-	-	-	OT MANY	-	00-00 10	By Cal	Louis a	-	Sec. 1	mark AD advert
CLSI	-	-	-	-	-	-	r(tape)	►(tape)	Comments	-	LSSI; PICA (tape)
Comstow	-	-	-	-	-	a segmentation of the second	-	and a second		1	12 planet
Data Research	-	-	-	-		-	-	-	1004-45	-	and AR allows
Data Trek	-	-	0.90	ANT NOT	-	1 1 1 1 1	-	-	-	-	MITINET
DOBIS	-	-	-	1.1.2.1	-	a condition of	and the second second	the second		1 10 10	· STYL MARTIN
Dynix	-	-	-	-	-	-	-	-	-	-	N LaserCat; LSSI;Gaylord Super
Gaylord	1.1.1				*	angraphy.	NA RUSS	-		1000	S-ULING DO Anoran
Geac	-	-	-	-	-	-	1000	-	-	-	1 1 1 1 1 1 1 1 1 1 1 1
Geac Adv.	-	-	-	Distance in the	-	-		-	-	-	
Georgetown	-			and the second		man she				5-004	instead of the second
Info Dimensions	-	-	1 - 5 - 5	-	-			-	1000-00	-	
Inlex	-		-	-	-	-	-	-	-	-	CART AL STORY

	T 11 4 C'		and the second second second second
and the second second	12010 4. 5170	of Installations	a province in the second second
이 영화 이 아이는 것 같은 것 같아.	Table T. UILE	UI IIISIAIIAIIUIIS	
and the second second	A DESCRIPTION OF A DESC		

Vendor	Smallest Lib	rary installed	Largest Library Installed		
Vendor	Terminals	Titles	Terminais	Titles	
CARL	88	200,000	920+	4,200,000	
Carlyle	1 1	36,000	132	1,400,000	
CLSI	5	18,190	300	875,000	
Comstow	2	. 5,000	Undefined	400,000	
Data Research Assocs.	5	20,000	500+	1,400,000	
DOBIS	3	50,000	1,000+	2,000,000+	
Dynix	1	4,700	334	800.000	
Geac	3	30,000	254	2,100,000	
Geac Advanced	2	55,000	165	1,200,000	
Inlex	4	6,000	180	300.000	
Innovative Interfaces	2	5,000	230	1,500,000	
NOTIS	10	16,000	1,300	5,400,000	
Sirsi	2	3,000	70 .	355,000	
Sobeco/MultiLIS	2	3,000	250	2,000,000	
Unisys	1	3,000	900+	1,650,000	
Universal Lib. Systems	8	52,379	238	587,576	
Utlas	18	80,000	225	3,000,000	
VTLS	4	6,500	200	5,000,000	

Unisys

Unisys continues to market its library automation system, called PALS, almost equally in the United States and abroad. While installations in academic libraries were impressive for 1989 (15 systems installed), over half of these were installed in Europe and the Far East. But the PALS system is gaining in both general name recognition and acceptance as a mainstream alternative for academic libraries. Nineteen ninety will be a telling year for the Unisys commitment to this product in the United States.

VTLS

While Inlex was demonstrating its ability to establish strong growth in the United States, VTLS found greatest acceptance as the HP-based system of choice for foreign locations. Of the 16 VTLS systems installed during 1989, nine were installed in Europe and abroad. But VTLS remains determined to provide an expanded menu of products to enable growth both domestically and abroad. During 1989, the company announced a new library automation product called "Marcus," designed for op-eration on mid-range IBM computers, and released VTLS-89 that allows OPAC users to navigate to a CD-ROM system for searching. As with several other vendors, 9 was another steady year for VTLS.

the belower of the set			200	5,000,000	searching. As 1989 was ano
A BROWN STONE STREET	A stall a stall	and the products			
commons	and the state of the T		dame detailed	Seal there is a second	112 1 1 1 1 1 1 1 1 1
while have a straight of the		The star in			1. 1 1 1 1 1
ello de la company	und distances of the state		Source	List	See.
it first was to forming ? :	His de maliner at	1	Bits in wide and	141.21 -544 1.	the contract of the
Advanced Libraries &	Data Trek. Inc		General Research Co		
Information, Inc.	5838 Edison Place	at a factor	383 Hollister Ave.		S Corporation
(see Geac)	Carisbad, CA 92008	in the second	O Box 6770		e-Levesque Blvd. W.
Brodart	800-876-5484		anta Barbara, CA	Killo Conodo	al, Quebec H2Z 1Y7
Library Automation Div.	619-431-8400	9	00-235-6788	514-878	
500 Arch St.	FAX 619-431-8448		11 A.M.	EAV SI	4-878-2673
Williamsport, PA 17705			Georgetown Universit	ty	4-0/0-20/3
200 222 01/7	Dynix, Inc.		Aedical Center		IC.
000-233-840/	151 E. 1700 S.	E	Dahlgren Memorial	Library 428 W.	Ryan St.
CARL Systems Inc.	Provo, UT 84606	3	900 Reservoir Rd. 1	WW Brillion	, WI 54110
777 Grant St., Suite 304	800-288-8020	V	Vashington, DC 200	07 800-624	
Denver, CO 80203	801-375-2770	in 2	02-687-1035	FAX 41	4-756-2359
303-861-5319	FAX 801-373-1889	F	AX 202-687-1862		ACCESSION AND AND A
FAX 303-830-0103			Conce 1151		Systems, Inc.
G	EBSCO Subscription S		BM (DOBIS)	1007 Ch	urch St., 2d fl.
Carlyle Systems, Inc.	PO Box 1943		ibrary Marketing	Evansto	n, IL 60201-3622
5750 Hollis St.	Birmingham, AL 3520	1 4	72 Wheelers Farms	Rd. 708-866-	-0150
Emeryville, CA 94608	205-991-6600		lilford, CT 06460	FAX 70	8-866-0178
415-428-3900	205 371-0000		03-783-7350	2054 g = 2	
FAX 415-654-0464	F.W. Faxon Company	F	AX 203-788-7636	OCLC,	Inc. (LC/2000)
CLSI, Inc.	15 Southwest Park	Tr.	formation Access C	Local S	ystems Division
320 Nevada St.	Westwood, MA 02090	1	Davis Dr.	1 0000 F12	
Newtonville, MA 02160	617-329-3350		eimont, CA 94002		OH 43017
800-365-0085	017-329-3330		15-591-2333	800-848-	
617-955-6310	F-11-44 C-C C		J-J71-2333	614-764-	
FAX 617-969-1928	Follett Software Compa	any In	formation Dimensio	FAX 614	4-764-0723
	809 N. Front St.	6	5 Metro Place S., Su	1. 100	Communities C
Columbia Computing Svcs.	McHenry, IL 60050	D	ublin, OH 43017-13	rioData	Computer Svcs.
8101 E. Prentice Ave.	800-323-3397 815-344-8700		0-DATA-MGT	7270 W.	Dodge Rd., #406
Suite 700		61	4-761-7446	402-399-	NE 68114
Englewood, CO 80111-2911	FAX 815-344-8774	*. F.	AX 614-761-7290	800-228-	
800-663-0544	.				2-399-8249
FAX 303-773-9630	Gateway Software Cor		lex, Inc.		-399-8249
Commenter Manager	1645 Ave. D		00 Garden Rd., Sui	te 200 Ringgold	Management
Computer Management &	Billings, MT 59102		D Box 1349	Systems,	Inc.
Development Services	406-256-9716		onterey, CA 93940	PO Box	368
PO Box 1184	800-359-3641		0-553-1202		on, OR 97075-0368
Harrisburg, VA 22801			8-646-9666	503-645-3	3502
Ramsburg, VA 22801	Gaylord Brothers	. F2	AX 408-646-0651		-690-6642

Tacoma Public Library 1102 Tacoma Ave. S.

Tacoma, WA 98402 206-591-5606 FAX 206-591-5470

ULISYS Software Group Suite 225-L 18 Gostick Place North Vancouver, BC Canada V7M 3G3 604-987-0588

Unisys PO Box 500 MS/B140 Blue Bell, PA 19424 215-986-4061 FAX 215-986-6230

Universal Library Systems (see ULISYS Software Group)

Utlas International Canada 80 Bloor St. W., 2d fl. Toronto, Ontario Canada M5S 2V1 800-268-0982 416-923-0890 FAX 416-923-0935

UTLAS Internat. U.S., Inc. 8300 College Blvd. Overland Park, KS 66210 800-33-UTLAS 913-451-3111 FAX 913-451-2551