

# ***MultiValue Database Features, Functionality, and Comparisons Report***

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*Prepared by*



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# 1. Project Introduction

## 1.1 A few facts as we see them...

The last few years have seen some remarkable changes in the MultiValue database market. There have been mergers, acquisitions and bankruptcies. Products assumed to be long gone have re-emerged with new leadership. Sturdy, reliable and trustworthy products have been abandoned when the businesses supporting them were acquired, bankrupt, or lost their financial support. Conversely, brand new products have been developed from scratch.

End Users, Value Added Resellers, and Third Party Tool Software Developers have been affected by the shift in the MultiValue database industry. Some have become concerned by the market volatility and have moved away from MultiValue based solutions to alternative solutions they feel are safer. Others have decided that their investment in MultiValue Technology is worthwhile, and have stayed the course.

Added to the decision mix is the driving need for easy to use graphical user or web based interfaces, and data interconnectivity. End Users and Software Developers using legacy systems are struggling with the requirement to update feature rich legacy software with a user friendly windows or web look and feel.

The MultiValue industry has always had brilliant engineering. The database model is nimble, efficient in disk space utilization, and has excellent performance. It needs less memory and enables rapid software development. This was the unique value-add of the historical Pick Operating System.

Now new technology has made disk, memory and performance inexpensive. User presentation layers, interoperability, and open data exchange are necessary value-add to meet business requirements.

And so, the MultiValue database and software developers find themselves once again faced with the challenge of re-inventing their products, their organizations, and ultimately their value to End Users and Value Added Resellers.

## 1.2 Who are we?

Modular Information Systems has been providing MultiValue Software Applications and Consulting Technology Services since 1985. We have been fortunate to represent and work with almost every MultiValue platform, and our Professional Consulting staff embarrassingly admits to over 300 years of cumulative MultiValue experience.

We have over 200 MultiValue related customers in 15 different industry sectors. We're independent. We don't believe that one MultiValue database is the right answer for every customer. We believe each customer deserves a unique solution that is tailored to their budget and business needs. We know from experience that business requirements should drive the technology that serves it, not vice versa.

## 1.3 Why are we doing this?

Slightly over 60% of our customers have MultiValue related technology solutions. In the last 18 months, almost every one of our 200 MultiValue related customers has contacted us asking about the state of the industry. These customers are asking simple, direct, and hard to answer questions. They want to know if their MultiValue database products are going to be "obsolete" or part of an "end of life" program. Or will their particular MultiValue vendor go out of business; downsize to a point where service is difficult to access; slow down or cease new feature development. Are there other viable MultiValue solutions? Should they be looking at Oracle or SQL Server databases?

Just to add to the complexity, there is political and economic uncertainty that has reduced investment capital. Current events including the .com implosion and acts of terrorism have paralyzed our lives and our businesses. It's a fragile time, where nothing seems certain.

Modular found ourselves with the same questions as our customers. Our business is 16 years old. What technologies will our next 16 years be built on? We've diversified and added many other technologies and services to our consulting practice, but we still have a significant core portion of our business devoted to MultiValue solutions. What foundation will our future be based upon?

Being curious people who are unwilling to make up answers or theorize based upon limited knowledge; we decided that this problem was just like all of the other problems our customers ask us to solve. It required systems analysis, research and evaluation.

## ***1.4 What are we looking for?***

The truth about our database industry. The good, the bad, and the ugly. We want to know what to plan for. What do we need to learn? What technologies should we invest in? Who can we depend upon? Where are our leaders, partners and resources? What can we expect? Who can we trust?

## ***1.5 How we went about it...***

Modular created a team of our professional consultants and staff to come up with an approach. The team members are:

- Lisa Corbett, President
- Patrick Shabram, Manager of Sales and Marketing
- Kevin Boyles, Manager of Technology
- Terry McCully, Manager of Information Systems
- Albert Quan, Senior Consultant
- Craig Saunders, Senior Consultant
- Toni Hage, Technical Writer
- Bruce Corbett, CFO & Chairman

Four of the team members have over 20 years working with Multi Value solutions. Two of the team members have less than 5 years MultiValue experience. One of the team members has been working outside of the industry in the cutting edge Internet Technology for the last 4 years. It made for a diverse mix. Assumptions made, based on prior knowledge, were challenged. Discussion of product and company heritages, legacies, flavors and Assembler code with comments in French enlivened some of our meetings.

Project definition and scope presented an interesting problem for us. We could have spent an entire year on this effort. The agreement to share the results of our evaluation at the International Spectrum Conference in February 2002 led to a limited initial scope.



The team determined that we needed to collect information from each of the MultiValue database vendors. Two surveys were created: financial and marketing; and product functionality. These were distributed to the following MultiValue database vendors. Please note that in this paper and presentation, all MultiValue vendors are presented in alphabetical order, either by vendor name or database name. Presentation order does not denote preference.

Vendor Name	Databases
IBM U2 Division	UniVerse & UniData
jBASE Software	jBASE
Northgate Information Solutions	Reality
Raining Data Corporation	D3, mvBase, mvEnterprise
Revelation Software	Advanced Revelation & Open Insight
Via Systems	UniVision

The vendor survey responses have been included in this White Paper. We have not annotated or modified the vendor survey responses in any way. Necessary formatting changes have been made to include the surveys in the document.

The team also determined that we needed to evaluate each of the databases independently at Modular Information Systems. Knowing that we had a deadline of February 18<sup>th</sup>, we determined that the first pass at evaluating the databases would have to be limited in platform and functionality scope. Windows 2000/NT was selected as the platform to evaluate the databases. Selection of this hardware platform meant that we would be unable to evaluate the mvEnterprise database from Raining Data Corporation because it operates solely upon the IBM AIX pSeries platform. Our future evaluation plans as described further in this document will allow us to revisit this database product.

Our evaluation included the following criteria:

Installation of the database product: time, ease, disk space, path flexibility, documentation, authorization, technical support, NT system administration experience required.
Migration of an account to the database. The account derived from an Advanced Pick Pro native system. The application manages title and deed documents. There were 63 programs in the BP file, 23 data files, and a total account size of 4.5 megabytes.
Successful compilation of the basic programs.
Successful application software execution after compilation.
Setup and test of a 4mm tape drive.
Setup and test of a network printer.
Setup and test of user logins.

This initial evaluation criterion is just a first step towards exercising these databases and their robust functionality. In many aspects, we have barely touched the capabilities of these products. With the International Spectrum presentation deadline of February 18<sup>th</sup>, 2002, we needed to limit our initial scope.

Results of this evaluation may be found in this document under Section 4, Product Testing.

Over the coming year, there will be additional evaluation of platforms, performance, fault tolerance, development languages, interfaces and tools, and interoperability. Our results will be posted to <http://www.miscorp.com/WhitePapers.asp>.

## ***1.6 What platform did we use?***

We utilized the same Intel based Pentium server for all database tests. The server used was not selected for performance. It was selected because it was stable, had a SCSI controller, and available for dedicated use for this project. The configuration is:

Pentium II 350 mhz Single Processor
Microsoft Windows NT, Service Pack Level 6
128 Megabytes of Memory
Seagate ST38641A 8.61 Gigabyte IDE Disk Drive
4mm DAT HP35480A SCSI Tape Drive
32x CD-ROM Drive
Adaptec Ultra SCSI 160 Controller
Trendnet Ethernet 10/100 Network Interface Card
Hewlett Packard 5si Laser Printer – Network Printer

## 2. Finance and Marketing

### 2.1 Overview

#### 2.1.1 What we were told

Modular requested financial information from the database vendors because we believe that financial stability and working capital are primary success components to software development and engineering businesses. Without these financial resources, development and engineering will not continue, and database products become dated and obsolete.

That being said, from the many talented people amongst our staff, only our Chief Financial Officer (Bruce Corbett) is really a good judge of Financial Statements. We have simply accepted the Financial Information that has been submitted in the surveys, and have recapped interesting facts in this White Paper.

We strongly recommend that customers of database vendors perform a thorough fiscal evaluation of targeted vendors prior to significant product purchase. Of course, we always make this recommendation, but it is still good advice.

A few observations we are obligated to note:

- We are troubled and concerned by the lack of response to most of the Financial and Marketing Questions by Raining Data Corporation. Modular contacted Raining Data Corporation numerous times requesting additional information, which was not provided. Out of 45 questions, we only received answers to 15.
- We are disappointed that Revelation Software did not disclose their revenue information, but respect the fact that they are a privately held organization and have the right and privilege to do so.
- We are disappointed that IBM is unable to provide divisional financial revenue information. However, it is our professional opinion that IBM has strong financial resources.

Modular did run a Dun & Bradstreet report on each of the vendors. Modular recommends that you request detailed Dun & Bradstreet or other financial service reports if you are interested in additional information. A high level summary of those results is as follows:

Vendor Name	Duns#	D&B Rating	Paydex Score
IBM	00-169-7945	1R3	65
JBASE	92-776-9588	1R3	50
Northgate Information Solutions	21-750-3127	2A3	68
Raining Data Corporation	18-764-3614	---- No rating.	66
Revelation Software	18-113-7670	1R3	79
Via Systems	05-862-4404	---- No rating.	76

The D&B Rating summary is a composite score indicating the business size and a Composite Credit Appraisal. For example: a score of “1R” indicates a business size of 10 or more employees, and the number “3” indicates an overall “fair” credit appraisal. The lack of a D&B rating can stem from several causes, which are noted by D&B in each report.

The Paydex score is also a composite score that evaluates payments to suppliers, taking payments within terms into account.

## 2.1.2 Public vs. Private

Only one of the MultiValue database vendors is privately held: Revelation Software. The remaining companies are publicly traded on four different exchanges throughout the world. Three of them have parent companies.

Company Name	Parent Company	Public or Private	Stock Exchange
IBM		Public	NYSE:IBM
JBASE	TEMENOS	Public	SWX:TEMN
Northgate Information Solutions		Public	London
Raining Data Corporation		Public	NASDAQ:RDTA
Revelation Software	Win Win Solutions, Inc.	Private	
Via Systems	Electronic Data Processing, Plc.	Public	London

## 2.1.3 Extra Credit

We asked each company to tell us any extra information about the financial security of their organization. Here are their responses:

IBM: IBM is a publicly traded company with very strong financials. IBM U2 is a strong and profitable business segment within IBM, with over 65,000 installations and approximately 4 million users worldwide.

JBASE: jBASE is in the unique position of being owned by a company whose very existence is dependent on how well its technology keeps up with the mainstream. The TEMENOS Globus product, which runs on JBASE, is a leading software application in a very mainstream and conservative market.

The core JBASE technology that benefits TEMENOS benefits all software developers and VARs. In addition, the success of JBASE benefits TEMENOS and vice versa. The future of TEMENOS is extremely positive, even more so with the enhancements that JBASE permits.

Revelation Software: The Company is privately held, fully funded, with no debt.

Via Systems: Cash balance as of 30 September 2001 is \$9,150,000.00 US.

While all of this is useful information, the responses from Revelation Software and Via Systems directly answer the question, for which we are appreciative.

## 2.1.4 History Lessons

We asked each Company to describe the organization heritage of each of their databases, including the history of companies owning the rights for each database from first development to current times.

IBM, jBASE, Revelation Software and Via Systems provided comprehensive answers to the question, and so, get an A+ for effort. Please go to their Financial and Marketing Questionnaire responses if you are interested in what they said.

Raining Data Corporation referred us to their website, on which we were unable to locate the complete history of D3, mvBase and mvEnterprise. While some experienced MultiValue professionals could probably recite these product histories, we'd like the official version please.

Northgate Information Solutions indicated NA, which could mean "not available" or "not applicable". Either way, we'd still like to know more about the background of Reality someday.

### 2.1.5 Marketing: Inside or Outside?

We wanted to know who each database vendor was marketing to, and what kind of effort and dollars were involved.

Only Revelation Software and jBASE indicated that they were marketing and advertising outside of the MultiValue industry. Other vendors may be doing this also, but they did not tell us about it.

Almost all of the database vendors indicated that they are marketing to Value Added Resellers and Application Developers, which makes perfect sense.

Only Revelation Software and jBASE told us how much money they were spending on marketing expenditures.

IBM did tell us that they were going to spend twice as much as last year, but didn't tell us how much last year amounted to. We think it sounds pretty good though, so we wish them great success.

Our concern is that focused marketing and advertising efforts within the MultiValue industry only will limit market growth, and ultimately leads to vendors competing against one another. We'd like to see more competition against some other database vendors.

### 2.1.6 Sales & Marketing Staff

How many sales and marketing professionals are out there selling these products? Here are the answers we received. A note: we know that there are sales and marketing people over at Raining Data. We do not know why they didn't tell us about them. (An October 2002 update, inside sources at Raining Data provided the following headcounts for the sales and marketing staff, and these numbers are reflected here. This is not an official survey response from Raining Data. This new information is market with an asterisk \*)

Company	Inside Sales	Outside Sales	Marketing Staff	Total
IBM	6	26	21	53
jBASE	0	7	4.5	11.5
Northgate	26	VARs (0)	9	35
Raining Data	3*	7*	6*	16*
Revelation	3	1	2	6
Via Systems	0	7	5	12

## 2.1.7 Primary Sales Methods

Valid answers to this question were: Direct end user sales, Channel/VAR Sales, and Both. Please note that we think that the answer for Revelation is “Both” because they indicate that they have VAR’s in the answer to another question.

Company	Direct End User Sales	Channel/VAR Sales	Both
IBM		Yes	
jBASE		Yes	
Northgate			Yes
Raining Data			
Revelation	Yes		
Via Systems			Yes

## 2.1.8 Let’s Count VAR’s & Distributors

We wanted to know how many Value Added Resellers and Distributors are developing or distributing applications to end-users. Due to the fact that many Value Added Resellers may represent more than one product, it’s difficult to know what the net number of MultiValue Value Added Resellers really adds up to. A subsequent planned survey to MultiValue VAR’s may help us determine what that number is. For now, here are the reported numbers.

Company	Value Added Resellers	Distributors
IBM	600+	7
jBASE	60	6
Northgate	26	
Raining Data		
Revelation	12	2
Via Systems	10	4

## 2.1.9 Largest End User

This question was not focused on the tallest end-user or the one with the greatest body mass. We wanted to know what the largest end-user installed site was from each Company. IBM didn’t answer the question, but we know from professional experience that they have more than one UniVerse site with over 2,000 users.

Company	Largest End User License
jBASE	2,000
Northgate	2,008
Revelation	350
Via Systems	1,350

### 2.1.10 New Multi Value Licenses Sold in 2001

Apparently not enough of the MultiValue database vendors actually utilize the database to track information about themselves. We wanted to know how many MultiValue licenses were sold in 2001. This is a pretty serious question, because it ties into whether or not the industry is growing or shrinking. Three vendors answered the question. We hope next year, we will receive answers from more Companies.

Company	Licenses sold in 2001
jBASE	3000
Northgate	26000
Revelation	13441

### 2.1.11 Total Multi Value Licenses and End User Seats

We asked this question a number of different ways. We asked for total licenses sold by year, by database and platform, by end-users. We also asked how many active licenses by database. We received different answers from some of the vendors, making it difficult to add all of the licenses up. We know Raining Data has many established licenses and end-users, and wish they had told us about them. Here's the consolidated breakdown of what we did receive. (An October 2002 update, inside sources at Raining Data provided the following Installation and End User Seat information, and these numbers are reflected here. It is our understanding that this reflects current MultiValue licenses on Annual Maintenance Contracts only, and as such may be understated. This is not an official survey response from Raining Data. This new information is marked with an asterisk \*)

Company	Sites or Installations	Licenses or End User Seats	%
IBM U2	65,000	4,000,000	56%
jBASE	3,500	130,000	2%
Northgate		300,000	4%
Raining Data	20,000*	1,300,000*	18%
Revelation	49,425	1,405,000	20%
Via Systems	800	18,800	0%
Total	138,725	7,153,800	

## 2.1.12 Vendor Employees

We wanted to know how many professionals were out there working on the support and development of MultiValue databases. With the exception of Raining Data Corporation, here is the head count.

Company	Database Division Employees	Customer Support Employees	Development & Engineering Employees
IBM	130+	27 North America	45
jBASE	63	17	19
Northgate	1,050	190	20
Raining Data			
Revelation	12	6	4
Via Systems	200	15	10

## 2.1.13 Customer Support 7x24

All of the MultiValue vendors provide customer support for their products. From our experience in testing, every vendor had excellent customer support. The vendors who will agree to stay up late to take your support call, (for a fee), are as follows:

- IBM
- jBASE
- Northgate Information Solutions
- Raining Data Corporation

## 2.1.14 Pricing

MultiValue databases are extremely competitively priced. Functionality should weigh over price in any database purchase decision. The MultiValue database pricing makes that an easy decision.

Almost every vendor indicated that they have free evaluation licenses. Most of the pricing depends upon what platform and operating system you are running on. Prices start below \$300.00 per user, and climb to over \$600.00 per user for enterprise edition licenses. We recommend you check out the questionnaire responses from each vendor.



## 2.2 IBM Corporation

### 2.2.1 Marketing and Organizational Questionnaire

#### 2.2.1.1 Organization

Question	Response
Company Name	IBM
Database Division Name	IBM U2
Parent Company	IBM
Founded	1911 (U2 Business dates back to early '80s)
Is this company publicly or privately owned?	Public
If public, on what exchange(s) is this company's stock traded?	NYSE:IBM
Headquarters location:	Armonk, NY
Division headquarters location:	Denver, CO (IBM U2)
Name and title of head of database division	Susie Siegesmund, IBM U2 Business Executive Janet Perna, Vice President, Data Management
How many offices does the database division have? Please provide locations of offices.	IBM has X offices worldwide. IBM U2 has strong sales and support staff in the UK and Australia.
Does your company and/or database division have any major marketing and/or development partnerships with any hardware and/or operating system manufacturers?	IBM U2 has relationships with all of the major developers of hardware and operating systems for UNIX and Windows platforms.
When was each of your MultiValue databases developed?	UniData, 1989; UniVerse 1987

**If available, please provide an organizational chart of your company's database division management.**

Janet Perna, VP, Data Management  
Tom Rosamilia, VP, Development  
Susie Siegesmund, IBM U2 Business Executive  
Helen Beylkin, Engineering  
Jackie Burhans, Product Management  
Kathy Kennedy, Educational Services  
Steve O'Neal, Profession Services Delivery  
Janet Oswald, Marketing  
Eddy Saldanha, IT  
Vinnie Smith, Technical Support  
Wally Terhune, Advanced Technical Support  
Chris Warda, Professional Services Business Development

**Please describe the organizational heritage of each of your databases (history of companies owning the rights for each database from first development to current).**

UniData was created by Unidata, Inc., which was founded in the early eighties and launched the UniData nested relational database in the market in the late eighties.

UniVerse was created by VMark, Inc, which was founded in the late seventies and launched its database into the market in the mid-eighties.

Unidata and VMark merged to form Ardent Software in 1999. Ardent continued to enhance, sell and support both UniData and UniVerse, and to offer DataStage, an extraction and transformation tool.

Informix acquired Ardent Software in 2000 and continued to sell, support and enhance all Ardent products.

IBM acquired the assets of Informix Software in July 2001, excepting the data warehousing, content management and related products that stayed with the company that was renamed Ascential Software.

UniData and UniVerse are part of the IBM U2 integrated business group, which is headed by Susie Siegesmund. IBM, which originated the pioneering research into nested relational databases in their Heidelberg, Germany labs, is committed to continued support, development and enhancement of the IBM U2 databases and their related tools.

**2.2.1.2 Financial**

Question	Response
What were the gross revenues of this division in 2001? 2000?	IBM does not publish product-specific financial information.
What were your net profits in 2001? 2000?	
What were the 2001 and 2000 sales directly associated with this company's databases?	
Please break down percent of sales associated with the following:	
Database products	
Maintenance	
Professional Services	
Could you please provide your D&B #, if available?	

**Please share with us any information you would like to about the financial security of your organization and/or company?**

IBM is a publicly traded company with very strong financials.

IBM U2 is a strong and profitable business segment within IBM, with over 65,000 installations and approximately 4 million users worldwide.

**2.2.1.3 Marketing**

Question	Response															
What are your primary marketing targets?	All Vertical Industries															
What were your annual marketing expenditures for 2001?	IBM does not publish product-specific financial information.															
What are your anticipated marketing expenditures for 2002?	For IBM U2, double the expenditures of the previous year.															
How many licenses were sold in 2001? Please breakdown by platform and database.	<table border="1"> <thead> <tr> <th data-bbox="773 592 964 630">Database</th> <th data-bbox="964 592 1149 630">Platform</th> <th data-bbox="1149 592 1338 630">#Licenses</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Database	Platform	#Licenses												
	Database	Platform	#Licenses													
How many licenses do you anticipate selling in 2002? Please breakdown by platform and database if possible.	<table border="1"> <thead> <tr> <th data-bbox="773 800 964 837">Database</th> <th data-bbox="964 800 1149 837">Platform</th> <th data-bbox="1149 800 1338 837">#Licenses</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Database	Platform	#Licenses												
	Database	Platform	#Licenses													
What is the size of your inside sales staff? Outside sales staff?	6 25															
What is the size of your marketing staff/consulting staff?	8 13															
What is your primary method of sales, direct sales, channel partners, or both?	Primarily VARS															
How many active VARs do you have?	600+															
If possible, please break down your VARs by marketing channel.	Higher Education Distribution Manufacturing Government Retail Oil & Gas Automotive Financial Ticketing Systems CRM															
How many distributors do you have?	7															

Question	Response
What is your single largest current installation in number of users?	

**Please provide a breakdown of pricing (you may attach a price list). Please include maintenance pricing.**

UniData and UniVerse are available in 4 “editions”, priced as follows:

Personal 2 users, Windows, Linux, (free for UV10/UD6)  
Workgroup, 3-24 users, Windows, Linux, SCO, \$295/user  
Server, 4+ users, all platforms, no device licensing, \$445/user  
Enterprise, 25+ users, all platforms, \$650/user

**Would you like to share with us any information on future marketing efforts?**

All U2 products have been re-branded with the IBM name (as in IBM UniVerse). IBM is the third most valuable brand in the world. IBM spends considerable resources annually to promote and protect this brand. The IBM U2 group will focus on co-marketing with our partners.

**What is the current number of worldwide users of your databases? Please break down by database and platform.**

Database	Platform	Number of Users
UniData	AIX	
	HP	
	Solaris	
	Windows	
	Linux	
UniVerse	AIX	
	HP	
	Solaris	
	Windows	

How many active licenses exist for each database?

Database	Active Licenses
UniData	
UniVerse	

**2.2.1.4 Staffing**

Question	Response
How many employees are in your database division?	IBM U2 has 130+ employees WW.
What is the size of your support staff?	27 in North America; various Worldwide
Where is you support staff located?	Mainly HQ in Denver, two remote support centers
What is the size of your development staff?	45
Where is your development staff located?	Mostly, Denver, CO; Sydney, AUS; UK; Seattle, WA
What are your standard hours for support (please indicate time zones)?	8 – 5 local Customer time. US Support is staffed 6-6 Mountain Time. Support centers in Sydney, Australia and Bedford Lakes, UK allow for 24x7 availability.
Do you offer 24x7 support?	Yes

## 2.3 jBASE Software

### 2.3.1 Marketing and Organizational Questionnaire

#### 2.3.1.1 Organization

Question	Response
Company Name	jBASE Software
Database Division Name	jBASE Software
Parent Company	TEMENOS
Founded	jBASE was founded in 1989
Is this company publicly or privately owned?	Public
If public, on what exchange(s) is this company's stock traded?	SWX - TEMN
Headquarters location:	Geneva, Switzerland
Division headquarters location:	Framingham, MA
Name and title of head of database division	Dave Bryant, President
How many offices does the database division have? Please provide locations of offices.	4 major, Framingham,MA, Portland OR, Hemel Hempstead (UK), N Sydney. 8 minor
Does your company and/or database division have any major marketing and/or development partnerships with any hardware and/or operating system manufacturers?	We have developer relationships with all the major hardware and OS vendors and we are a Strategic Global Partner with IBM
When was each of your MultiValue databases developed?	jBASE started development in 1989



**If available, please provide an organizational chart of your company's database division management.**

N/A

**Please describe the organizational heritage of each of your databases (history of companies owning the rights for each database from first development to current).**

jBASE (and subsequently its parent TEMENOS) have always been the owner of the jBASE Intellectual Property. jBASE was developed from scratch.

### 2.3.1.2 Financial

FY 2000 numbers are not available due to several reasons, but primarily the purchase of jBASE by TEMENOS and changes in accounting practices necessitated by that transaction. This information relates to the US jBASE corporate entity only.

Question	Response
What were the gross revenues of this division in 2001? 2000?	2001 - \$7.84m not including any revenue from TEMENOS license sales (3,300 seats) – this is not included because of the ownership status of TEMENOS
What were your net profits in 2001? 2000?	This information is extremely difficult to state as the organization within jBASE and other group companies do not lend themselves to individual “division” profit figures.
What were the 2001 and 2000 sales directly associated with this company’s databases?	We sell no other products therefore all of it.
Please break down percent of sales associated with the following:	
Database products	55%
Maintenance	39%
Professional Services	6%
Could you please provide your D&B #, if available?	

#### **Please share with us any information you would like to about the financial security of your organization and/or company?**

jBASE is in the unique position of being owned by a company whose very existence is dependent on how well its technology keeps up with the mainstream. The TEMENOS Globus product, which runs on jBASE, is a leading software application in a very mainstream and conservative market.

The core jBASE technology that benefits TEMENOS benefits all software developers and VARs. In addition the success of jBASE benefits TEMENOS and vice versa. The future of TEMENOS is extremely positive, even more so with the enhancements that jBASE permits.

**2.3.1.3 Marketing**

Question	Response															
What are your primary marketing targets?	VARs, ISVs and development houses															
What were your annual marketing expenditures for 2001?	jBASE spent over \$350k not including shared marketing with TEMENOS. This can be a misleading figure as Sales and Marketing expenditure is often confused. jBASE spends about 37% of its annual budget on sales and marketing and this will figure will continue to grow.															
What are your anticipated marketing expenditures for 2002?	jBASE will spend over \$500,000 on marketing in 2002. This does not include any shared marketing that will be done between the database division and the application division															
How many licenses were sold in 2001? Please breakdown by platform and database.  800 sites/26,500 licenses	<table border="1"> <thead> <tr> <th data-bbox="824 747 1008 768">Database</th> <th data-bbox="1016 747 1190 768">Platform</th> <th data-bbox="1198 747 1372 768">#Licenses</th> </tr> </thead> <tbody> <tr> <td data-bbox="824 772 1008 800">jBASE</td> <td data-bbox="1016 772 1190 800">ALL</td> <td data-bbox="1198 772 1372 800">26,500</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Database	Platform	#Licenses	jBASE	ALL	26,500									
Database	Platform	#Licenses														
jBASE	ALL	26,500														
How many licenses do you anticipate selling in 2002? Please breakdown by platform and database if possible.  1500 sites/50,000 licenses	<table border="1"> <thead> <tr> <th data-bbox="824 957 1008 978">Database</th> <th data-bbox="1016 957 1190 978">Platform</th> <th data-bbox="1198 957 1372 978">#Licenses</th> </tr> </thead> <tbody> <tr> <td data-bbox="824 982 1008 1010">jBASE</td> <td data-bbox="1016 982 1190 1010">ALL</td> <td data-bbox="1198 982 1372 1010">50,000</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Database	Platform	#Licenses	jBASE	ALL	50,000									
Database	Platform	#Licenses														
jBASE	ALL	50,000														
How many active licenses has jBASE shipped	We have sold over 130,000 licenses in over 3,500 systems as of December 31 <sup>st</sup> , 2001 not including TEMENOS/Globus seats (over 3,000 were shipped in 2001)															
What is the size of your inside sales staff? Outside sales staff?	Outside sales = 7 However the whole company sells															
What is the size of your marketing staff/consulting staff?	4 ½															
What is your primary method of sales, direct sales, channel partners, or both?	Channel Partners															
How many active VARs do you have?	47 as of Dec 31 <sup>st</sup> – many signed up this year – we now have over 80 active signed VARs															
If possible, please break down your VARs by marketing channel.																
How many distributors do you have?	6 excluding TEMENOS distributors who have the ability to distribute jBASE if required															

Question	Response
What is your single largest current installation in number of users?	2,000

Please provide a breakdown of pricing (you may attach a price list). Please include maintenance pricing.

Price list attached. (Pricing list included below.)



## US\$ List Pricing for jBASE Licenses

### February 2002

#### jBASE Server Version

The "traditional" Server for Windows NT, Windows 2000 and UNIX servers where users connect to the server by asynchronous terminal, serial connections, or telnet sessions. Each serial connection or telnet session takes up a user license. If a user has three telnet sessions in use on a single PC this takes up three (3) user licenses. Licensing is per concurrently connected user. The networking functionality of this version is complete and so if there is more than one server on a local area network, then each of the servers can act as a jRFS server for the other jBASE systems. See the Enterprise Section below for Server to Enterprise upgrade pricing.

	List Price	8x5 Standard Annual Maintenance and Support	24x7 Annual Maintenance and Support
1-100 cc users	\$349.00	\$52.00	\$77.00
101-300 cc users	\$335.00	\$52.00	\$77.00
301+ cc users	\$310.00	\$52.00	\$77.00

#### jBASE Enterprise Version

Consists of three separate licensed pieces: (1) a user license for jBASE for the server; (2) a user license for jBASE for the client (either Windows 98/Me or NT Workstation); (3) includes a license for jBASE ObjEX, Java ObjEX, jDP and jDC. jDP provides an OLE DB, ODBC, ADO and JDBC interface to jBASE data. jDC allows jBASE data to be accessed by SQL based (i.e. non Multidimensional) tools. While the jBASE client is fully functional, the client must be actively connected to a jBASE server. Each Enterprise user is licensed for an unlimited number of concurrent sessions on the server.

	List Price	8x5 Standard Annual Maintenance and Support	24x7 Annual Maintenance and Support
1-100 cc users	\$449.00	\$67.00	\$99.00
101-300 cc users	\$430.00	\$67.00	\$99.00
301+ cc users	\$405.00	\$67.00	\$99.00

#### Server to Enterprise Upgrade

The price to upgrade a jBASE Server user to an Enterprise user is \$125 per user.

## jBASE e-Commerce Version

This version includes all the functionality of the Enterprise version plus the jBASE Web Builder capabilities. This product is used for both the development and the deployment of web based applications that have been developed using jBASE Web Builder. Developers use standard web browsers to design, develop, debug, deploy and maintain jBASE Web Builder applications. jBASE Web Builder dynamically generates HTML and included scripts "on-the-fly". The jBASE e-Commerce Version is licensed per concurrent user; each user session claims a license that is held for specific length of time and then released or retained depending on usage.

*For very high volume and high concurrent user counts in extranet applications please call your jBASE representative for a quote.*

	List Price	8x5 Standard Annual Maintenance and Support	24x7 Annual Maintenance and Support
1-100 cc users	\$649.00	\$97.00	\$145.00
101-300 cc users	\$625.00	\$97.00	\$145.00
301+ cc users	\$600.00	\$97.00	\$145.00

## Server/Enterprise Upgrades to e-Commerce Version

The price to upgrade from Server to e-Commerce is \$350 per user.

The price to upgrade from Enterprise to e-Commerce Version is \$250 per user.

Although it is possible to mix e-Commerce users with other jBASE user products, it is highly recommended that e-Commerce applications be deployed on independent systems for very practical reasons such as security and performance. *For very high volume and high concurrent user counts in extranet applications, please call your jBASE representative for a quote.*

## jBASE Windows 98, Windows Me and Windows NT Workstation Standalone

For Windows 98, Windows Me and Windows NT Workstation. For use by an individual user (developer or end user) who does not need to be connected to a network. This product is a full version of jBASE but *it cannot be used as a jRFS (Remote File Service) server*. If used in conjunction with a jBASE Server license (see below) it is the functional equivalent of an Enterprise license, but will also function as a standalone system (e.g. a laptop used by a salesman usually on the road or a developer who wants to develop while not in the office). It includes a jBASE OBJEX license as well as the ability to use JDP and jDC, and Java OBJEX. jDP provides an OLE DB, ODBC, ADO and JDBC interface to jBASE data. jDC allows jBASE data to be accessed by SQL based (i.e. non Multidimensional) tools.

	List Price	8x5 Standard Annual Maintenance and Support	24x7 Annual Maintenance and Support
Per Standalone PC	\$149.00	\$22.00	\$33.00

## Transaction Journaling

Each system that needs transaction journaling (TJ) will have a system wide license. This enables files to write a log to that system. If jBASE needs to write a log to another system (hot standby system), then both systems need to be TJ licensed and enabled. For example, if a site needs to have a hot standby system that backs up another machine, then two TJ licenses need to be purchased: one First System and one Subsequent System. If two systems need to have files backed up to a single backup system, then that site will need one First System and two Subsequent System licenses.

	List Price	8x5 Standard Annual Maintenance and Support	24x7 Annual Maintenance and Support
First System	\$5,000.00	\$750.00	\$1,100.00
Each Subsequent System	\$2,500.00	\$375.00	\$550.00

## jEDI Development Kit for Relational Databases

The jEDI Development Kit for Relational Databases is a tool set for generating relational database schema and tables from jBASE dictionary definitions and then producing jEDI drivers for that relational database. The result is your jBASE application using the jEDI driver to run on a foreign relational database. *Call your jBASE representative for quote.*

### Documentation

jBASE System Administration Manual	\$ 50
jBASE Programmers Reference Manual	\$ 50
jBASE Advanced Programmers Reference Manual	\$ 50
jBASE Documentation set (all three manuals)	\$125

### Notes:

- jBASE Server and Enterprise user licenses can be mixed on a single system.
- Shipping and handling charges are additional. These charges will be waived if the software can be delivered electronically.
- Documentation may be downloaded from the jBASE Web site ([www.jBASE.com](http://www.jBASE.com)) free of charge. Hardcopy documentation is available for purchase.
- jBASE is available on all major Windows and UNIX platforms. For a current list of supported platforms, please visit the web site at [www.jBASE.com](http://www.jBASE.com).

### Policies:

**Change of Platforms:** jBASE Software does not charge for changing operating systems or hardware platforms. jBASE reserves the right to charge a nominal charge for related media and administrative service.

**Hot Standby Licensing:** A secondary system maybe licensed to serve as a hot backup system for the customer's primary system. In case of failure, this backup system will accommodate the full number of users licensed on the primary system. The charge for this secondary system is 10% of the list price of the jBASE users for the primary system. The customer is entitled to use 10% of the total number of primary users in normal usage such as reporting, development, or testing, etc. For example, at a site with 100 users on the primary system, 10 users would be licensed on the secondary system.

All Hot Standby deals must be approved by jBASE Sales or Marketing staff.

**Would you like to share with us any information on future marketing efforts?**

jBASE sees the need to move into the mainstream while still maintaining their commitment to the MultiValued market (and MV model).

You will see jBASE start to extend the message to other target markets after release 4.1 has gained a firm and referenceable installed base.

A good example of this is the recent IBM/Linux campaign, which ran in the Wall Street Journal, Forbes and Business Week. A copy of which is also attached.

**What is the current number of worldwide users of your databases? Please break down by database and platform.**

These figures, while they do not give actual numbers of users, give the percentage of users and systems using each platform. The percentages are different between columns indicating that while Linux and Windows account for significant numbers of systems shipped they tend to be smaller systems whereas the AIX/HPUX/Solaris systems provide on average a much larger number of users per system.

Database	Users	Systems
AIX	21%	15%
HPUX	20%	11%
Linux	15%	28%
Windows	24%	37%
Solaris	12%	4%
Other	7%	5%

How many active licenses exist for each database?

As we are the new kid on the block we have very few licenses that have been deactivated. Over 95% of all jBASE licenses ever sold are still active (on maintenance).

Database	Active Licenses
jBASE	130,000



**2.3.1.4 Staffing**

Question	Response
How many employees are in your database division?	63
What is the size of your support staff?	Extra Large - Actually 17 throughout the world
Where is you support staff located?	Portland, OR, Florida, Hemel Hempstead, Sydney
What is the size of your development staff?	19 actual developers – QA, docs and admin extra
Where is your development staff located?	Portland and Hemel
What are your standard hours for support (please indicate time zones)?	8:00 am Eastern – 6:00 Pacific in the US
Do you offer 24x7 support?	Yes

## 2.4 Northgate Information Systems

### 2.4.1 Marketing and Organizational Questionnaire

#### 2.4.1.1 Organization

Question	Response
Company Name	Northgate Information Solutions
Database Division Name	Northgate Information Solutions
Parent Company	Northgate Information Solutions
Founded	1972
Is this company publicly or privately owned?	Public
If public, on what exchange(s) is this company's stock traded?	London
Headquarters location:	Hemel Hempstead, England
Division headquarters location:	Hemel Hempstead and Irvine, CA
Name and title of head of database division	Chris Stone
How many offices does the database division have? Please provide locations of offices.	10
Does your company and/or database division have any major marketing and/or development partnerships with any hardware and/or operating system manufacturers?	Sun and IBM
When was each of your MultiValue databases developed?	1974

**If available, please provide an organizational chart of your company's database division management.**

NA

**Please describe the organizational heritage of each of your databases (history of companies owning the rights for each database from first development to current).**

NA

**2.4.1.2 Financial**

Question	Response
What were the gross revenues of this division in 2001? 2000?	\$159 million 2000/2001
What were your net profits in 2001? 2000?	\$6.75 Million
What were the 2001 and 2000 sales directly associated with this company's databases?	\$29.8 Million
Please break down percent of sales associated with the following:	
Database products	41%
Maintenance	38%
Professional Services	19%
Could you please provide your D&B #, if available?	

**Please share with us any information you would like to about the financial security of your organization and/or company?**

**2.4.1.3 Marketing**

Question	Response												
What are your primary marketing targets?	Ends Users and VARs												
What were your annual marketing expenditures for 2001?	na												
What are your anticipated marketing expenditures for 2002?	na												
How many licenses were sold in 2001? Please breakdown by platform and database.	<table border="1"> <thead> <tr> <th data-bbox="773 592 964 623">Database</th> <th data-bbox="964 592 1149 623">Platform</th> <th data-bbox="1149 592 1336 623">#Licenses</th> </tr> </thead> <tbody> <tr> <td data-bbox="773 623 964 655">Reality</td> <td data-bbox="964 623 1149 655">NA</td> <td data-bbox="1149 623 1336 655">26,000</td> </tr> <tr> <td data-bbox="773 655 964 686"></td> <td data-bbox="964 655 1149 686"></td> <td data-bbox="1149 655 1336 686"></td> </tr> <tr> <td data-bbox="773 686 964 718"></td> <td data-bbox="964 686 1149 718"></td> <td data-bbox="1149 686 1336 718"></td> </tr> </tbody> </table>	Database	Platform	#Licenses	Reality	NA	26,000						
	Database	Platform	#Licenses										
	Reality	NA	26,000										
How many licenses do you anticipate selling in 2002? Please breakdown by platform and database if possible.	<table border="1"> <thead> <tr> <th data-bbox="773 800 964 831">Database</th> <th data-bbox="964 800 1149 831">Platform</th> <th data-bbox="1149 800 1336 831">#Licenses</th> </tr> </thead> <tbody> <tr> <td data-bbox="773 831 964 863">Reality</td> <td data-bbox="964 831 1149 863">NA</td> <td data-bbox="1149 831 1336 863">40,000</td> </tr> <tr> <td data-bbox="773 863 964 894"></td> <td data-bbox="964 863 1149 894"></td> <td data-bbox="1149 863 1336 894"></td> </tr> <tr> <td data-bbox="773 894 964 926"></td> <td data-bbox="964 894 1149 926"></td> <td data-bbox="1149 894 1336 926"></td> </tr> </tbody> </table>	Database	Platform	#Licenses	Reality	NA	40,000						
	Database	Platform	#Licenses										
	Reality	NA	40,000										
What is the size of your inside sales staff? Outside sales staff?	26 inside and VARs outside												
What is the size of your marketing staff/consulting staff?	9												
What is your primary method of sales, direct sales, channel partners, or both?	Both												
How many active VARs do you have?	26												
If possible, please break down your VARs by marketing channel.	na												
How many distributors do you have?	VAR/resellers												
What is your single largest current installation in number of users?	2,008 users												

**Please provide a breakdown of pricing (you may attach a price list). Please include maintenance pricing.**

Reality V 9.0 Base License each - \$390.00

Base includes - Auto Indexing, Partition Database, ODBC-SQL read only

ODBC-SQL update, ODBC SQL Software Developer Kit, Remote Basic, Remote Subroutine Call, RPL 6.0, ISIS RPQ R56, Wordmate, ALL, Transaction Logging,

Documentation

Failsafe Multi-System Transaction Logging - \$3440.00

RealWeb 3.0 - \$3000.00

**Would you like to share with us any information on future marketing efforts?**

na

**What is the current number of worldwide users of your databases? Please break down by database and platform.**

Database	Platform	Number of Users
Reality	various	300,000

**How many active licenses exist for each database?**

Database	Active Licenses

**2.4.1.4 Staffing**

Question	Response
How many employees are in your database division?	1050
What is the size of your support staff?	190
Where is you support staff located?	Dispersed
What is the size of your development staff?	20 for Reality and 80 for applications
Where is your development staff located?	Dispersed
What are your standard hours for support (please indicate time zones)?	8-5 in any Reality user time zone
Do you offer 24x7 support?	Yes



## 2.5 Raining Data

### 2.5.1 Marketing and Organizational Questionnaire

#### 2.5.1.1 Organization

Question	Response
Company Name	Raining Data Corporation
Database Division Name	
Parent Company	Raining Data Corporation
Founded	1987
Is this company publicly or privately owned?	Public
If public, on what exchange(s) is this company's stock traded?	NASDAQ (Trading Symbol: RDTA)
Headquarters location:	Irvine, California
Division headquarters location:	
Name and title of head of database division	Carlton H Baab, CEO/President
How many offices does the database division have? Please provide locations of offices.	Offices in Irvine (HQ), UK, France & Germany Worldwide Presence
Does your company and/or database division have any major marketing and/or development partnerships with any hardware and/or operating system manufacturers?	Yes
When was each of your MultiValue databases developed?	The original version of our Pick DBMS was developed in the mid 1980's

**If available, please provide an organizational chart of your company's database division management.**

**Please describe the organizational heritage of each of your databases (history of companies owning the rights for each database from first development to current).**

<http://www.rainingdata.com>

**2.5.1.2 Financial**

Question	Response
What were the gross revenues of this division in 2001? 2000?	Raining Data is on a fiscal year ending March 31 <sup>st</sup> , 2002 (FY'2002) Q1 Revenues were 6.0 million. Q2 Revenues were 5.0 million EDBITA (0.37 million) positive!
What were your net profits in 2001? 2000?	Please refer to 10KSB and 10QSB filings available at <a href="http://www.sec.gov">http://www.sec.gov</a>
What were the 2001 and 2000 sales directly associated with this company's databases?	Please refer to 10KSB and 10QSB filings available at <a href="http://www.sec.gov">http://www.sec.gov</a>
Please break down percent of sales associated with the following:	
Database products	44%
Maintenance	56% (Includes professional Services)
Professional Services	See Above
Could you please provide your D&B #, if available?	

**Please share with us any information you would like to about the financial security of your organization and/or company?**

Based on preliminary information currently available, Raining Data anticipates reporting revenue in the range of 5.1 and 5.2 million for the quarter ended December 31,2001 and cash and accounts receivable of \$3.9 million and \$2.7 million respectively, as of that date.

So the company is cash positive with reserves. A note of the current events with NASDAQ: As part of the process of building the best possible team to council our company moving forward, we have hired KPMG to look at all our accounting processes. They have found some accounting misapplications that are being revised. This has no effect on revenue, cash nor the financial integrity of the Company. Because of this process, we have filed an extension to post our 10Q. Once KPMG wraps up their work, we will post our results accordingly.

I hope this information helps. Bottom line: The company is healthy, we have the financial resources to move forward with delivering the products and services our customers need and we are committed to delivering high quality products to the multivalue market space. We will continue to invest in all database and tool products and building a more efficient and effective organization by attracting top talent to our organization (as we have done recently).

**2.5.1.3 Marketing**

Question	Response
What are your primary marketing targets?	Application software developers
What were your annual marketing expenditures for 2001?	Please refer to 10KSB and 10QSB filings available at <a href="http://www.sec.gov">http://www.sec.gov</a>
What are your anticipated marketing expenditures for 2002?	
How many licenses were sold in 2001? Please breakdown by platform and database.	
How many licenses do you anticipate selling in 2002? Please breakdown by platform and database if possible.	
What is the size of your inside sales staff? Outside sales staff?	
What is the size of your marketing staff/consulting staff?	
What is your primary method of sales, direct sales, channel partners, or both?	Please refer to 10KSB and 10QSB filings available at <a href="http://www.sec.gov">http://www.sec.gov</a>
How many active VARs do you have?	1300 Active VARs, ISV Resellers & End User Customers
If possible, please break down your VARs by marketing channel.	
How many distributors do you have?	
What is your single largest current installation in number of users?	

Please provide a breakdown of pricing (you may attach a price list). Please include maintenance pricing.

See published price lists. (Price lists have been included below.)

## Product Pricing Policies

Database & Connectivity Review Draft March 7, 2002.  
Supersedes all previous price information, terms and conditions of sale.  
All prices are payable in US Dollars.  
All Prices are Subject to change.

### DATABASE PRODUCTS

	Product Name	MvEnterprise	mvBase	D <sup>3</sup> AIX	D <sup>3</sup> DG/UX Intel	D <sup>3</sup> DG/UX 88k	D <sup>3</sup> HP-UX	D <sup>3</sup> Linux	D <sup>3</sup> Motorola	D <sup>3</sup> NT	D <sup>3</sup> ProPlus	D <sup>3</sup> SCO	D <sup>3</sup> UnixWare	D <sup>3</sup> Sun
List Price	Product Description	Product Codes												
\$350	Server	042	022	100	101	107	102	105	222	108	112	103	104	106
\$350	Client	043	034	162	165	131	164	163	270	161	169	167	168	166
\$350	Server Add-on									129				
\$350	Client Add-on	044	023	180	183	197	182	181	351	179	187	185	186	184
\$55	Gold Support	027	018	170	173	149	172	171	199	178	177	175	176	174
\$55	Client Add-on Gold Support	086	091	188	191	198	190	189	231	196	195	193	194	192
\$85	Platinum Support	028	019	710	722	732	726	708	735	712	728	716	730	729
\$85	Client Add-on Platinum Support	085	090	711	731	733	734	709	736	713	737	717	738	739
\$350	Workstation									111				
\$350	D3 NT Workstation Add-on									138				
\$350	Windows 95/98 (7.1.x and below)									285				
\$350	Windows 95/98 Add-on (7.1.x and below)									286				

**DEVELOPMENT PRODUCTS**

<b>List Price</b>	<b>Product Description</b>	<b>Product Codes</b>
	<b>mvDesigner Software Development Kit (SDK)</b>	
\$3,895	mvDesigner SDK – Standard	201
\$2,895	mvDesigner SDK – No Training	206
\$700	mvDesigner Annual Maintenance Renewal	252
\$0	mvDesigner Evaluation Copy	207
	<b>mvDesigner Client License</b>	
	<b>Client License, Per Client:</b>	
\$110	Qty 1-8	748
\$149	Qty 9-100	748
\$135	Qty > 100	748
\$113	Qty > 500	748
\$99	Qty > 1000	748
	<b>Annual Maintenance, Per Client:</b>	
\$20	Qty 1-8	749
\$27	Qty 9-100	749
\$24	Qty > 100	749
\$20	Qty > 500	749
\$18	Qty > 1000	749
	<b>mvDesigner Application Server License</b>	
	<b>Application Server License, Per Connection:</b>	
\$99	Qty 1-100	744
\$90	Qty > 100	744
\$75	Qty > 500	744
\$66	Qty > 1000	744
\$27,000	Per Processor (unlimited connections)	746
	<b>Annual Maintenance, Per Connection:</b>	
\$20	Qty 1-100	745
\$18	Qty > 100	745
\$16	Qty > 500	745
\$14	Qty > 1000	745
\$5,400	Per Processor (unlimited connections)	747

## CONNECTIVITY PRODUCTS

Connectivity Tools		Product Codes			
List Price	Product Name	D3 AIX	D3 HP-UX	D3 Linux	D3 SCO
\$3,995	D3 Oracle Gateway	544	545	397	395
\$974	D3 Oracle Gateway Support	546	547	398	396
		Product Codes			
\$139	AccuTerm 2000 Single User License	528			
\$995	AccuTerm 2000 Site License	529			
\$995	AccuTerm 2000 Internet Edition	588			
\$495	AccuTerm 2000 IE- Add-on to Site	589			
\$1,100	D3 FlashCONNECT (7.0 & 7.1)	200			
\$0	D3 FlashCONNECT (7.2 and above)	200			
\$300	D3 FlashCONNECT Gold Support	130			
\$500	D3 FlashCONNECT Platinum Support	150			
N/A	D3 MQI	438			
\$2,995	D3 ODBC	393			
\$0	HACMP Feature Code	202			
\$750	RPC Libraries, Pick/VB Questions Support	223			
\$1,000	RPC Libraries, Pick/VB Questions Support	224			

**END-OF-LIFE PRODUCTS**

	<b>End-Of-Life - Effective 12/31/99</b>	<b>AP AIX</b>	<b>AP DG/UX Intel</b>	<b>AP DG/UX 88k</b>	<b>AP HP-UX</b>	<b>AP Motorola</b>	<b>AP Pro</b>	<b>AP SCO 3.2.4.2</b>	<b>AP SCO OS V</b>
<b>List Price</b>	<b>Product Description</b>	<b>Product Codes</b>							
\$495	AP Client Add-on	140	141	146	142	144	147	230	145
\$69	AP Gold Support	152	153	158	154	156	159	251	157
\$69	AP Client Add-on Gold Support	309	310	308	311		316	314	
\$100	AP Platinum Support	714							
\$100	AP Client Add-on Platinum Support	715							

	<b>End-Of-Life - Effective 12/31/01</b>	<b>Mentor Pro 5.0</b>	<b>Mentor Pro 4.1</b>
\$300	Server	007	045
\$350	Server w/PicLan	009	047
\$300	Client	030	049
\$350	Client w/PicLan	031	050
\$300	Client Add-on	008	046
\$350	Client Add-on w/PicLan	010	048
\$55	Gold Support	003	003
\$55	Client Add-on Gold Support	098	098
\$85	Platinum Support	004	004
\$85	Client Add-on Platinum Support	097	097

	<b>End-Of-Life - Effective 4/1/01</b>	<b>Mentor O/E</b>	<b>MOS</b>	<b>mvPro</b>	<b>Power95</b>	<b>R91</b>	<b>Sequoia</b>
\$495	Client Add-on	012		041	015	038	N/A
\$69	Gold Support	002		029	016	026	051
\$69	Client Add-on Gold Support	099		084	093	087	N/A
\$100	Platinum Support	013		052	017	066	053
\$100	Client Add-on Platinum Support	094			092		N/A
\$360	Gold Support- DOS Interconnect	N/A	N/A	N/A	N/A	062	N/A
\$360	Gold Support- DOS Interoperability	N/A	N/A	N/A	N/A	061	N/A
\$360	Gold Support- Ethernet	N/A	N/A	N/A	N/A	064	N/A
\$360	Gold Support- Networking	N/A	N/A	N/A	N/A	060	N/A
\$360	Platinum Support- Networking	N/A	N/A	N/A	N/A	067	N/A
\$456	Gold Support- Transaction Logging	N/A	N/A	N/A	N/A	063	N/A
\$456	Platinum Support- Transaction Logging	N/A	N/A	N/A	N/A	068	N/A



## End User Support Guide Rates

Effective February 15, 2002.

Supersedes all previous price information, terms and conditions of sale.

All prices are payable in US Dollars.

All prices are subject to change.

### Software Maintenance Agreement (SMA) Current List Prices

Products	Per Incident Support (8 hrs/day, 5 days/week)	Gold Support (12 hrs/day, 5 days/week + 8 hrs Saturday)	Platinum Support (24 hrs/day, 7 days/week)
Released or Retired	\$250/hour 2 hour minimum	\$55 per seat	\$85 per seat
End-of-Life	\$300/hour 2 hour minimum	Call for prices and availability	
FlashCONNECT (and associated Web servers)	\$250/hour 2 hour minimum	\$300 per site	\$500 per site
RPC Libraries and Visual Basic Tools (questions)	\$250/hour 2 hour minimum	\$750 per site	\$1,000 per site
Hot Backup (high availability machines)	\$250/hour 2 hour minimum	Standby machine (identical ports) @ 15% of first	Standby machine (identical ports) @ 25% of first
Out-of-Hours Support	Not Available	\$250/hour 2 hour minimum	No Charge

### Guidelines

- For all Released and Retired products, there is a per site list price minimum of \$250 for Gold and \$2,500 for Platinum Support.
- For all End-of-Life products, there is a per site list price minimum of \$500 for Gold Support and \$5,000 for Platinum Support.
- Several machines or several products may be combined to reach the per site list price minimum.
- As seats or components are added to a Software Maintenance Agreement, a pro-rated billing will be generated only if the new total Agreement value exceeds the per site list price minimum amount. Please contact your Raining Data sales representative to calculate the new value of the Software Maintenance Agreement.
- Software Maintenance Agreements automatically renew every twelve months unless canceled by the customer in writing sixty (60) days in advance of the renewal date.
- Software Maintenance Agreement renewals are invoiced 30 days in advance of the renewal date. Software Maintenance Agreements will be cancelled if invoices are not paid by the renewal date. Re-enrollment of a Software Maintenance Agreement will require that a fee be paid equal to one year of Software Maintenance, plus the purchase of a new Software Maintenance Agreement. The new Software Maintenance Agreement will become effective the date of invoice.
- Software Maintenance Agreements are not refundable, however credit will be given on a pro-rata basis if a plan is upgraded.
- If the annual Software Maintenance Agreement price exceeds \$20,000, the customer may elect to pay in quarterly installments for a 10% carrying charge.
- The customer may elect to prepay for up to three years of maintenance at once. Doing so will create Software Maintenance Agreement price protection for the duration of the agreement. This protection does not include the hourly rate for Per Incident Support services.
- A Blanket Software Maintenance Agreement may be available to resellers wishing to consolidate all of their customer sites onto one Agreement. Under a Blanket Software Maintenance Agreement, per site list price minimums are waived. In addition, the invoicing of individual Software Maintenance Agreements is eliminated. Restrictions apply. Please contact your Raining Data sales representative for further information.
- Due to staffing restrictions, Per Incident Support to non-Software Maintenance Agreement customers will ONLY be available Monday through Friday between 8:00 a.m. and 5:00 p.m. Pacific Time (US). Only customers with Software Maintenance Agreements will be able to receive support outside of these hours.

If you have any questions or require additional assistance, please contact your contact your Raining Data sales representative at 949-442-4400 or via email to sales@rainingdata.com.

**Would you like to share with us any information on future marketing efforts?**

**What is the current number of worldwide users of your databases? Please break down by database and platform.**

**How many active licenses exist for each database?**

**2.5.1.4 Staffing**

Question	Response
How many employees are in your database division?	Headcount of 139 as of September.
What is the size of your support staff?	
Where is you support staff located?	US (West/East Coast), France, UK
What is the size of your development staff?	
Where is your development staff located?	Irvine, California
What are your standard hours for support (please indicate time zones)?	12 x 5 + 8 (Saturday)
Do you offer 24x7 support?	Yes

## 2.6 Revelation Software

### 2.6.1 Marketing and Organizational Questionnaire

#### 2.6.1.1 Organization

Question	Response
Company Name	Revelation Software
Database Division Name	Revelation Technologies
Parent Company	WinWin Solutions Inc.
Founded	1982
Is this company publicly or privately owned?	Privately Held
If public, on what exchange(s) is this company's stock traded?	Not Publicly traded
Headquarters location:	Westwood, NJ
Division headquarters location:	Westwood, NJ
Name and title of head of database division	Michael Ruane
How many offices does the database division have? Please provide locations of offices.	2 Westwood, NJ, USA Portland, ME, USA
Does your company and/or database division have any major marketing and/or development partnerships with any hardware and/or operating system manufacturers?	No
When was each of your MultiValue databases developed?	Revelation: 1982 Advanced Revelation: 1987 OpenInsight: 1994 JOI: 2001

**If available, please provide an organizational chart of your company's database division management.**

N/A

**Please describe the organizational heritage of each of your databases (history of companies owning the rights for each database from first development to current).**

The company was originally founded in 1982 as Cosmos. Their first product was called Revelation. In 1987 Cosmos merged with Mainframe Micros Inc. (a company using Revelation for a Payroll and HR application) and renamed the company Revelation Technologies, since more people knew the name Revelation and it had become synonymous with Cosmos. WinWin Solutions, a Revelation software-consulting house, purchased controlling interest in Revelation Software in 2000.

**2.6.1.2 Financial**

Question	Response
What were the gross revenues of this division in 2001? 2000?	Private
What were your net profits in 2001? 2000?	Private
What were the 2001 and 2000 sales directly associated with this company's databases?	Private
Please break down percent of sales associated with the following:	
Database products	80%
Maintenance	20%
Professional Services	0%
Could you please provide your D&B #, if available?	181137670

**Please share with us any information you would like to about the financial security of your organization and/or company?**

The company is privately held, fully funded, with no debt, and quite profitable.

**2.6.1.3 Marketing**

Question	Response																		
What are your primary marketing targets?	Database developers and Solutions providers, who don't necessarily know about the MV world.																		
What were your annual marketing expenditures for 2001?	\$80, 000																		
What are your anticipated marketing expenditures for 2002?	\$200, 000																		
How many licenses were sold in 2001? Please breakdown by platform and database.	<table border="1"> <thead> <tr> <th data-bbox="773 600 963 632">Database</th> <th data-bbox="963 600 1149 632">Platform</th> <th data-bbox="1149 600 1336 632">#Licenses</th> </tr> </thead> <tbody> <tr> <td data-bbox="773 632 963 663">RevG</td> <td data-bbox="963 632 1149 663">PC</td> <td data-bbox="1149 632 1336 663">16</td> </tr> <tr> <td data-bbox="773 663 963 695">Arev</td> <td data-bbox="963 663 1149 695">PC</td> <td data-bbox="1149 663 1336 695">6241</td> </tr> <tr> <td data-bbox="773 695 963 726">OI</td> <td data-bbox="963 695 1149 726">PC</td> <td data-bbox="1149 695 1336 726">7184</td> </tr> <tr> <td data-bbox="773 726 963 758"></td> <td data-bbox="963 726 1149 758"></td> <td data-bbox="1149 726 1336 758"></td> </tr> <tr> <td data-bbox="773 758 963 789"></td> <td data-bbox="963 758 1149 789"></td> <td data-bbox="1149 758 1336 789"></td> </tr> </tbody> </table>	Database	Platform	#Licenses	RevG	PC	16	Arev	PC	6241	OI	PC	7184						
	Database	Platform	#Licenses																
	RevG	PC	16																
	Arev	PC	6241																
	OI	PC	7184																
How many licenses do you anticipate selling in 2002? Please breakdown by platform and database if possible.	<table border="1"> <thead> <tr> <th data-bbox="773 810 963 842">Database</th> <th data-bbox="963 810 1149 842">Platform</th> <th data-bbox="1149 810 1336 842">#Licenses</th> </tr> </thead> <tbody> <tr> <td data-bbox="773 842 963 873">RevG</td> <td data-bbox="963 842 1149 873">PC</td> <td data-bbox="1149 842 1336 873">10</td> </tr> <tr> <td data-bbox="773 873 963 905">Arev</td> <td data-bbox="963 873 1149 905">PC</td> <td data-bbox="1149 873 1336 905">5000</td> </tr> <tr> <td data-bbox="773 905 963 936">OI</td> <td data-bbox="963 905 1149 936">PC</td> <td data-bbox="1149 905 1336 936">15,000</td> </tr> <tr> <td data-bbox="773 936 963 968"></td> <td data-bbox="963 936 1149 968"></td> <td data-bbox="1149 936 1336 968"></td> </tr> <tr> <td data-bbox="773 968 963 999"></td> <td data-bbox="963 968 1149 999"></td> <td data-bbox="1149 968 1336 999"></td> </tr> </tbody> </table>	Database	Platform	#Licenses	RevG	PC	10	Arev	PC	5000	OI	PC	15,000						
	Database	Platform	#Licenses																
	RevG	PC	10																
	Arev	PC	5000																
	OI	PC	15,000																
What is the size of your inside sales staff? Outside sales staff?	3 inside, 1 outside																		
What is the size of your marketing staff/consulting staff?	2																		
What is your primary method of sales, direct sales, channel partners, or both?	Direct Sales																		
How many active VARs do you have?	12																		
If possible, please break down your VARs by marketing channel.																			
How many distributors do you have?	2																		
What is your single largest current installation in number of users?	350																		

Please provide a breakdown of pricing (you may attach a price list). Please include maintenance pricing.

Product Name	Version	Product Code	Media	SRP
<b>Revelation OpenInsight for Workgroups</b>				
<b>*Development*</b>				
The WORKS (32 bit)	4.0.1	4542-8-401-4	CD	\$1,595
The WORKS - Renewal (until 30 Days past Expir.)	4.0.1	3521-1-000-0	CD	\$995
The WORKS - Renewal (31-90 Days past Expir.)	4.0.1	3521-1-000-0	CD	\$1,295
The WORKS - Renewal (90+ days past Expir.)	4.0.1	3521-1-000-0	CD	\$1,595
<b>*Deployment*</b>				
OpenInsight SDP 3 User	**	3542-1-310-1	Both	\$795
OpenInsight SDP 5 User	**	3542-5-310-1	Both	\$995
OpenInsight SDP Unlimited User	**	3542-9-310-1	Disk	\$5,000
Standalone Reporter Runtime	3.7.2 +	3520-4-372-1	Disk	\$345
Network Ready 1 User Reporter Runtime (RSDP)	3.7.2 +	3520-1-372-1	Disk	\$395
Network Ready 3 User Reporter Runtime (RSDP)	3.7.2 +	3520-3-372-1	Disk	\$1,095
Network Ready 5 User Reporter Runtime (RSDP)	3.7.2 +	3520-5-372-1	Disk	\$1,800
Network Ready Unltd. User Reporter Runtime (RSDP)	3.7.2 +	3520-9-372-1	Disk	\$10,000
OpenInsight DRSDP 1 User	**	3542-1-372-4	CD	\$1,295
OpenInsight DRSDP 3 User	**	3542-3-372-4	CD	\$3,885
OpenInsight DRSDP 5 User	**	3542-5-372-4	CD	\$6,475
OpenInsight Unlimited DRSDP	**	3542-9-372-4	CD	\$35,000
Revelation Web Deployment Pack	**	5410-1-370-6	CD	\$7,500
<b>*Documentation*</b>				
OI Doc Set - 2 book set (pref/ntab)	3.4	3550-2-340-0	Doc	\$50
OI Doc Set - 4 book set (pref/ntab/gad/rep)	3.4	3550-0-340-0	Doc	\$100
<b>*Training Classes/Materials*</b>				
OI Training - Introductory Class	**	3560-1-300-1	Class	\$1,195
Advanced Training Classes	**	enter all 3 sku's	Class	\$1,895
*Advanced Training - Basic+ Programming	**	3560-2-300-1	Class	\$1,045
*Advanced Training - DDE/Data Warehousing	**	3560-3-300-1	Class	\$695
*Advanced Training - Internet Access	**	3560-4-300-1	Class	\$1,045
OI Intro Class Training Manual	**	3564-0-3xx-0	Doc	\$100
OI Advanced Class Basic + Training Manual	**	3564-0-101-0	Doc	\$75
OI Advanced Class DDE/DW Training Manual	**	3564-0-102-0	Doc	\$75
OI Advanced Class Internet Training Manual	**	3564-0-103-0	Doc	\$75
Web Boot Camp	**	9999-0-026-0	Class	\$1,495
OI Advanced Class 3-day Training Manual	**	3564-0-109-0	Doc	\$150
<b>Java for OpenInsight</b>				
JOI Single User Seat License	2.0.1	7072-1-200-1	Down	\$495
JOI Three User Seat License	2.0.1	7072-3-200-1	Down	\$795
JOI Five User Seat License	2.0.1	7072-5-200-1	Down	\$1,295
JOI Unlimited User Seat Licence	2.0.1	7072-9-200-1	Down	\$4,995
<b>Revelation Network Products</b>				
Revelation NLM 1.5 (Novell 3.x & 4.x)	1.50	5010-1-150-1	Disk	\$1,495
Revelation NLM 1.0x - 1.5 Upgrade (Novell 3.x & 4.x)	1.0x to 1.5	5091-1-150-1	Disk	\$199
Revelation NLM 1.1x - 1.5 Free Upgrade	1.1x to 1.5	5091-2-150-1	Disk	\$0



Revelation NLM 5.5 Full Prod	1.0x to 5.5	5010-1-550-1	Disk	\$1,595
Revelation NLM Client Upgrade 5.5 (OI Only)		5091-1-550-1	Disk	\$299
Revelation NLM 5.5 Tradeup	1.0x to 5.5	5091-1-555-1	Disk	\$495
Revelation Windows 2000 Service	2.1	5117-1-210-1	Disk	\$1,495
Revelation Windows 2000 Service Upgrade	2.1	5191-1-210-1	Disk	\$595
Revelation Network Performance Pack (not yet built)	2.1		Disk	

<u>Product Name</u>	<u>Version</u>	<u>Product Code</u>	<u>Media</u>	<u>SRP</u>
<b>Older Revelation Products</b>				
Revelation NLM 5.0 (Novell 5.0)	5.0	5010-1-500-1	Disk	\$1,495
Revelation NLM 5.0 Tradeup (Novell 5.0)	1.0x to 5.0	5091-1-500-1	Disk	\$249
Revelation Windows 2000 Service	1.5	5117-2-150-1	Disk	\$1,495
Revelation Windows 2000 Service Upgrade	1.X to 1.5	5191-2-150-1	Disk	\$149
The WORKS	3.7.2	3510-8-372-4	CD	\$1,595
TeamWORKS (5 devcopies)				
The WORKS - Renewal (until 30 Days past Expir.)	3.7.2	3521-1-000-0	CD	\$995
The WORKS - Renewal (31-90 Days past Expir.)	3.7.2	3521-1-000-0	CD	\$1,295
The WORKS - Renewal (90+ days past Expir.)	3.7.2	3521-1-000-0	CD	\$1,595
Revelation Network Performance Pack	1.5	5218-1-150-1	Disk	\$299
<b>Revelation Reporter</b>				
Reporter Development	3.1	3710-1-310-4	Both	\$129
Reporter Documentation	3.1	3750-0-310-0	Doc	\$15
<b>Support</b>				
Premium	**	5070-3-000-0	**	\$3,995
Incident (non-refundable)	**	2570-7-000-0	**	\$400

This is a partial list only- we have about three times as much product as listed here.

### Would you like to share with us any information on future marketing efforts?

We plan on doing more targeting of the Delimited Database market- such as XML. We're also trying to get the software into more schools.

**What is the current number of worldwide users of your databases? Please break down by database and platform.**

Database	Platform	Number of Users
Revelation	PC	30,000
Advanced Revelation	PC	525,000
OpenInsight	PC	850,000

**How many active licenses exist for each database?**

Database	Active Licenses
Revelation	1,050
Advanced Revelation	16,000
OpenInsight	32,375

**2.6.1.4 Staffing**

Question	Response
How many employees are in your database division?	12
What is the size of your support staff?	6
Where is you support staff located?	NJ, Maine, Australia
What is the size of your development staff?	4
Where is your development staff located?	NJ, ME, HI
What are your standard hours for support (please indicate time zones)?	7:00am – 6:00pm, EST. 9:00am 5:00 pm, GMT + 10
Do you offer 24x7 support?	No

## 2.7 Via Systems

### 2.7.1 Marketing and Organizational Questionnaire

#### 2.7.1.1 Organization

Question	Response
Company Name	Via Systems
Database Division Name	Electronic Data Processing, Plc.
Parent Company	Electronic Data Processing, Plc. Group
Founded	1978
Is this company publicly or privately owned?	Public
If public, on what exchange(s) is this company's stock traded?	London Stock Exchange
Headquarters location:	Sheffield, UK
Division headquarters location:	Sheffield, UK
Name and title of head of database division	R. J. Jowitt, Managing Director
How many offices does the database division have? Please provide locations of offices.	Glasgow, UK Milton Keynes, UK Northwich, UK Warrington, UK Oxford, UK Surrey, UK Halesowen, UK London, UK Colorado Springs, CO New York, NY
Does your company and/or database division have any major marketing and/or development partnerships with any hardware and/or operating system manufacturers?	NCR Dell
When was each of your MultiValue databases developed?	1994

**If available, please provide an organizational chart of your company's database division management.**

**Please describe the organizational heritage of each of your databases (history of companies owning the rights for each database from first development to current).**

Original development of a joint ADDS/EDP database was abandoned when ADDS was purchased by AT&T. EDP developed a clean-room version of the UniVision multivalued database based on ADDS and R83 documentation in C++.

**2.7.1.2 Financial**

Question	Response
What were the gross revenues of this division in 2001? 2000?	\$15,600,000.00 – 2001 \$12,600,000.00 – 2000 (approximate revenue in US\$)
What were your net profits in 2001? 2000?	\$500,000.00 – 2001 \$813,000.00 – 2000 (approximate net profits before exceptional items and good will amortization, in US\$)
What were the 2001 and 2000 sales directly associated with this company's databases?	
Please break down percent of sales associated with the following:	
Database products	
Maintenance	
Professional Services	
Could you please provide your D&B #, if available?	

**Please share with us any information you would like to about the financial security of your organization and/or company?**

Cash balances as of 30 September 2001 is \$9,150,000.00 US.

**2.7.1.3 Marketing**

Question	Response
What are your primary marketing targets?	VAR's and end-users on legacy systems.
What were your annual marketing expenditures for 2001?	
What are your anticipated marketing expenditures for 2002?	
How many licenses were sold in 2001? Please breakdown by platform and database.	Database Platform #Licenses
How many licenses do you anticipate selling in 2002? Please breakdown by platform and database if possible.	Database Platform #Licenses
What is the size of your inside sales staff? Outside sales staff?	7
What is the size of your marketing staff/consulting staff?	5
What is your primary method of sales, direct sales, channel partners, or both?	Both
How many active VARs do you have?	10 US
If possible, please break down your VARs by marketing channel.	
How many distributors do you have?	4
What is your single largest current installation in number of users?	1350

**Please provide a breakdown of pricing (you may attach a price list). Please include maintenance pricing.**

(See Attached) Price list included below.



## UniVision Retail Price List

Prices subject to change without notice

PRODUCT	PART NUMBER	LIST PRICE
<b>UniVision for Linux Premium</b> <sup>4</sup>		
<b>UniVision Database for 2 Users</b> Includes UniVision Database C and UniVision Documentation CD	UBFLP8	\$399.00
License fee per additional user	ULF-LP8	149.00
“Re-License fee” per additional user <sup>1</sup>	URF-LP8	59.00
<b>Annual Calendar Support Plan (required 1<sup>st</sup> yr.)</b> Must be purchased with product, and must include all seats purchased. Based on month purchased, prorated for balanced of calendar year.	UAS-LP8	39.00
<b>UniVision For Linux Lite—Shareware Database</b> <sup>3,6</sup>		
<b>UniVision Lite Shareware for 2 Users</b> 2 user evaluation	UBF-LL8	0.00
Media cost for UniVision Database (CD)	UCD-DB8	50.00
Media cost for UniVision Documentation (on CD)	UCD-DO8	50.00
Annual Calendar Support Plan (Maximum 5 user) Fee is per user. Must be purchased with acceptance of product, and must include all seats installed. Based on month purchased, prorated for balance of calendar year.	UAS-LL8	59.00
<b>UniVision for NT</b> <sup>5</sup>		
<b>UniVision Database for 2 Users</b> Includes UniVision Database CD and UniVision Documentation CD	UBF-NT7	499.00
<b>License fee per additional user</b>	ULF-NT7	199.00
“Re-License fee” per additional user <sup>1</sup>	URF-NT7	79.00
<b>Annual Calendar Support Plan (required 1<sup>st</sup> yr.)</b> Must be purchased with product, and must include all seats purchased. Based on month purchased, prorated for balanced of calendar year.	UAS-NT7	39.00
<b>UniVision for SCO UnixWare</b>		



PRODUCT	PART NUMBER	LIST PRICE
<b>UniVision Database for 2 Users</b> Includes UniVision Database CD and UniVision Documentation CD	UBF-UX8	499.00
License fee per additional user	ULF-UX8	199.00
“Re-License fee” per additional user <sup>1</sup>	URF-UX8	79.00
<b>Annual Calendar Support Plan (required 1<sup>st</sup> yr.)</b>  Must be purchased with product, and must include all seats purchased. Based on month purchased, prorated for balanced of calendar year.	UAS-UX8	39.00
<b>UniVision for AIX</b>		
<b>UniVision Database for 2 Users</b> Includes UniVision Database CD and UniVision Documentation CD	UBF-AX8	499.00
License fee per additional user	ULF-AX8	199.00
“Re-License fee” per additional user <sup>1</sup>	URF-AX8	79.00
<b>Annual Calendar Support Plan (required 1<sup>st</sup> yr.)</b>  Must be purchased with product, and must include all seats purchased. Based on month purchased, prorated for balanced of calendar year.	UAS-AX8	39.00

**NOTES:**

1. Re-License fee – applicable only for installations replacing a currently licensed MultiValue system and applicable only to the number of seats in the current license.
2. The Annual Calendar Support Plan provides direct telephone access for technical support. To qualify for the discounted rates, resellers and distributors must contract with and provide first line support to the end user. Via Systems responsibilities include support to the reseller and/or distributor and to supply periodic updates and corrections to the UniVision database product. If the end user contracts directly with Via Systems for support then no discount is applicable. If the support contract has lapsed, the fee to obtain a current release is 25% of the list price for each full or partial year the support contract has not been in place.
3. UniVision for Linux Lite is a limited feature version of UniVision
4. UniVision for Linux Premium includes the Viaduct Standard Edition for each user.
5. UniVision for NT includes a one-user copy of Viaduct Professional Edition and a Viaduct Standard Edition for each additional user.
6. Maximum number of users available per shareware license is 5.

**Would you like to share with us any information on future marketing efforts?**

We will continue to advertise in Data Base Trends, Spectrum Magazine and the OSDA Newsletter regularly.

We will participate in the International Spectrum Exhibit, and at least 3 of the 5 Regional Spectrum Exhibitions.

We will also be exhibiting in both of the OSDA Shows.

We will continue to participate in Multi Value User Group Presentations.

**What is the current number of worldwide users of your databases? Please break down by database and platform.**

Database	Platform	Number of Users
UniVision	All platforms	800 sites

**How many active licenses exist for each database?**

Database	Active Licenses
UniVision	18,800

**2.7.1.4 Staffing**

Question	Response
How many employees are in your database division?	200
What is the size of your support staff?	15
Where is you support staff located?	Worldwide
What is the size of your development staff?	10
Where is your development staff located?	Milton Keynes, UK Sheffield, UK Colorado Springs, CO
What are your standard hours for support (please indicate time zones)?	8-5 in local time zone
Do you offer 24x7 support?	No

## 3. Products and Functionality

### 3.1 Overview

Each of the vendor questionnaires that follow has been comprehensively answered by each of the database vendors. Some of the functionality does not lend itself to head to head comparison. Due to receiving the last vendor questionnaire Thursday, February 14, 2002, Modular has been unable to analyze comparative features within this document. Look for an updated White Paper by February 28<sup>th</sup>, for a more thorough analysis.

We encourage you to read through each of the vendor questionnaires. If you find yourself with a question regarding features or functionality that you would have been interested in the answer to, and it is not represented, please write to us care of [sales@miscorp.com](mailto:sales@miscorp.com). We'll include your questions in the next survey process.

## 3.2 IBM Corporation

### 3.2.1 MultiValue Product Comparison Questionnaire

#### 3.2.1.1 Platforms

Question	Response
1) Identify all platforms (Hardware/Operating System) that your MV database product is distributed on.	IBM AIX 4.3.2+, 5.1 HP HPUX 11+ Sun Solaris 2.7 (7), 8 Microsoft Windows (NT SP6, 2K SP2) RedHat Linux 6.2, 7.1 Compaq Tru64 4.0defg, 5.1a DG Intel 4.2 SCO UnixWare 7.1 SCO OpenServer 5.0.6 IBM NUMA-Q 4.4.8
2) Please list your current and next version levels and dates by platform	UniVerse 10, February 2002, IBM, HP, Solaris, Windows; Available Soon on RedHat Linux, Compaq Tru64 UniData 6, Due Summer 2002, see above
3) Which platform is your primary development platform?	Sun Solaris, IBM AIX
4) What is the minimum and maximum disk space supported?	Unlimited
5) How is the data store implemented? (i.e. – disk partition, platform filesystem, proprietary filesystem.)	O/S filesystem
6) Integration with Platform	Yes
a) Is security implemented separately by the product or integrated with the platform for: i) Users ii) Filesystem	Combination of O/S-based security and database security
b) How is data archived?	Any available backup tool will archive database data.
c) Are printers and print spooler handled independently by the product, integrated with the platform or left entirely to the platform operating system?	Combination; depends on database (UniData v UniVerse), platform (UNIX v NT)

Question	Response
d) Are peripherals managed independently by the product, integrated with the platform or left entirely to the platform operating system?	Combination; depends on database (UniData v UniVerse), platform (UNIX v NT)
e) Is terminal emulation managed independently by the product, integrated with the platform or left entirely to the platform operating system?	IBM U2 ships with Dynamic Connect, a 32-bit terminal emulator that supports device licensing. IBM U2 products also include wIntegrate and SBClient, products that provide terminal emulation, application renovation functionality.
f) Is memory managed independently by the product, integrated with the platform or left entirely to the platform operating system?	Combination. IBM U2 manages its use of shared memory for various bits of functionality and depends on the O/S for its memory management functionality in other instances.
g) How are multiple processors handled? (Directly through the product or indirectly through the operating system)	Primarily through the operating system.
h) Can a user configure which processor runs the db?	No.
7) Can there be multiple instantiations of the db running concurrently?	Yes for UniData; No for UniVerse

### 3.2.1.2 Features

Question	Response
1) What programming languages are supported? If they aren't included, are they available from you?	UniBasic for UniData; UniVerse Basic for UniVerse. Through APIs, middleware and clients, we also support C, C++, Java, ActiveX/COM (e.g. Visual Basic), HTTP, XML, etc. We provide the support for Basic and the middleware at no cost to integrate with other languages.
2) What MV-Environment scripting languages are supported? (i.e. - Proc, New Proc, TCL, Paragraphs, ProVerb, Sentences, Native Script Calls)	ECL, TCL, Sentences, Paragraphs, Procs, ProVerb
3) Which flavors does the product support? (i.e. – Microdata, Prime Information, ADDS/GA, Universe, Pick) a) How is flavor compatibility achieved? b) Is it configured at db installation, compile time or run-time? c) Are user exits supported?	The IBM U2 databases support a myriad of compatibility options to assist in migration from many multivalued flavors. a) via configuration files, parameters, compiler options, etc. b) combination of system-wide, session wide, and program-wide scope of configuration c) yes
4) What modes of connectivity are provided for users? (i.e. – Serial connections, telnet over TCP/IP, NFS, other network protocols, ODBC, JDBC, OLEDB, COM)	Serial, Telnet, TCP/IP, ODBC, OLEDB, JDBC (UV10), UCI (UV), ActiveX/COM are all standards-based connectivity. We also offer UniObjects, UniObjects for Java and InterCall for native connectivity.
5) What kind of terminal emulation is provided?	Any terminal emulator can be used. We provide several, see below.
6) Is a terminal emulation client provided? (Such as wIntegrate) a) What platforms is the client provided for? (i.e. – Windows, Mac) b) If no client is included, is an optional client available and at what price?	Yes, IBM U2 ships with a free, 32-bit terminal emulator called Dynamic Connect that supports device licensing (the ability to make multiple connections while consuming a single database license. We also have two additional terminal emulation/application renovation products: wIntegrate and SBClient a) 32-bit Windows Clients b) Dynamic Connect is free wIntegrate lists for \$199 SBClient lists for \$299



Question	Response
<p>7) How does the db integrate to a web server to provide web browser connectivity?</p> <p>a) Is this included? If not, is an optional product available and at what price?</p>	<p>There are many options for providing web browser connectivity to IBM U2. Included with the product are ODBC, OLEDB, ActiveX/COM, UniObjects, UniObjects for Java and C interfaces, all of which have been used by various clients for web browser connectivity.</p> <p>We also have IBM RedBack, a robust, eBusiness infrastructure that provides a myriad of open interfaces to an object interface to IBM U2 as well as connection pooling and load balancing. For pricing, contact an IBM U2 rep.</p>
<p>8) What tools are provided to administer the database, users, printers and devices?</p>	<p>IBM U2 database have both command line and Java-based client tools for administering all aspects of the database. UniAdmin is a Java applet-based tool than can run as a stand-alone client or within a browser.</p>
<p>9) How can data be imported? Please specify all possible modes, from one-time migration through real-time connections such as ODBC.</p>	<p>There are myriad mechanisms for importing data from XML parsing and reading functionality, to an ODBC API in Basic, to bulk loaders(UniVerse), to specific commands for migrating data from MultiValue databases etc.</p>
<p>10) How can data be exported? Please specify all possible modes, from one-time migration through real-time connections such as ODBC.</p>	<p>There are multiple options for exporting data including XML output from the query engine to ODBC, etc.</p>
<p>11) Is transaction logging supported?</p>	<p>Yes</p>
<p>12) Is filesystem journaling supported?</p>	<p>Yes</p>

**3.2.1.3 Performance**

Question	Response
1) What are the minimum and maximum number of user connections allowed?	A given user can make up to 10 connections from a single PC, using one of the supported IBM U2 APIs, clients or middleware while consuming only a single database license. For native interfaces, it is possible to exceed the 10 connections by consuming an additional license for each set of 10 connections.
2) What is the maximum number of concurrent users allowed?	1 to n. We have no predefined maximum.
3) What is the maximum configuration (users, disk space) currently in use by a customer?	

**3.2.1.4 Support**

Question	Response
1) How are end-users supported? (i.e. – directly, partners, VAR’s, distributors)	We support end users via all three models. A VAR typically provides first line support.
2) How many support centers and support engineers are there?	3, 27
3) What is the schedule for baseline support? (i.e.- business hours local to the support center, extended hours, 24x7)	8 – 5 local Customer time. US Support is staffed 6-6 Mountain Time. Support centers in Sydney, Australia and Bedford Lakes, UK allow for 24x7 availability.
4) Is support included in the product and for how long?	Only for installation and licensing.
5) What is the expected turnaround time for a support request?	Depends on type and priority of issue.
6) What is the cost of extending support?	Depends on maintenance status (current, off maintenance) and level of support desired.
7) What is the primary mode of support? What other modes are also supported? (i.e. – phone, fax, email, web)	Phone, email, web, fax
8) Does your support web site include a knowledge base for any user to lookup problems and solutions? If so, how many articles are included?	Yes.

**3.2.1.5 Documentation**

Question	Response
1) Please list the manuals available for the product.	Full manual sets are available for all products.
2) Which documentation is included with the product and in what form?	Full on-line documentation is included either on the product media or as a stand-alone CD.
3) What media is documentation available on? (On-line media should include the format, such as PDF, HTML, Windows Help, etc.)	CD, Web. We primarily provide manuals in PDF format, but also support HTML for some of the tools products as well as Windows help for client products.

**3.2.1.6 Training**

Question	Response
1) Do you provide training? If not, are there authorized training partners?	Yes. No.
2) Where (and how often) are classes conducted?	Flexible schedule. Classes offered at IBM training centers, on-site and on-line.  For class schedule, see: <a href="http://www.ibm.com/software/data/u2/education">http://www.ibm.com/software/data/u2/education</a>

**Please list the classes available for the product:**

### **Level I Courses**

**For beginning to intermediate users**

[L1-MI-930 \*\*NEW!\*\* Extracting Information for Strategic Decision Making Using MITS](#)

[L1-RB-400 \*\*NEW!\*\* IBM U2 Redback Essentials](#)

[L1-SB-500 \*\*REVISED!\*\* IBM U2 SB+ Essentials](#)

[L1-UD-100 IBM U2 UniData Fundamentals](#)

[L1-UD-200 IBM U2 UniData Administration for UNIX](#)

[L1-UD-201 IBM U2 UniData Administration for Windows NT](#)

[L1-UD-310 Structured UniBasic: The Programming Commands](#)

[L1-UV-140 \*\*NEW!\*\* Using SQL with the IBM UniVerse Database](#)

[L1-UV-900 IBM U2 UniVerse Fundamentals](#)

[L1-UV-903 IBM U2 UniVerse Database Programming](#)

[L1-UV-904 IBM U2 UniVerse Core Technologies](#)

[L1-UV-911 \*\*NEW!\*\* IBM U2 Universe ODBC](#)

[L1-UD-950 \*\*NEW!\*\* IBM U2 UniData ODBC](#)

[L1-UV-904NT IBM U2 UniVerse Core Technologies for Windows NT](#)

### **Level II Courses**

**For advanced users**

[L2-SB-525 \*\*REVISED!\*\* IBM U2 SB+ Advanced Development](#)

[L2-UD-120 IBM U2 Advanced UniData](#)

[L2-UV-905 IBM U2 Advanced UniVerse Technologies](#)

## 3.3 jBASE Software

### 3.3.1 MultiValue Product Comparison Questionnaire

The responses in this questionnaire are based on the features of jBASE 4.1, which is being shown at Spectrum. It is in Beta release and public release is imminent.

#### 3.3.1.1 Platforms

Question	Response
1) Identify all platforms (Hardware/Operating System) that your MV database product is distributed on.	AIX4.3.3 AIX5.1 HPUX11 Risc 1 HPUX11 Risc 2 RedHat Linux 6.2 RedHat Linux 7.2 Sun Solaris 7 Sun Solaris 8 Tru64 4.0E Tru64 5.1 Suse 7.2 Caldera 2.4 eDesktop Mandrake 8.0 Windows 98,2000,XP S390 Suse Linux 6.4
2) Please list your current and next version levels and dates by platform	3.4.2 has been released 3.4.3 due in July 2002 4.1.0 release controlled release due June 2002, full release Q2, 2002
3) Which platform is your primary development platform?	jBASE does not have a specific or preferred development platform. All Platforms are available for developers and they will usually choose either the fastest machine available or their favorite.
4) What is the minimum and maximum disk space supported?	50MB required for jBASE install. No maximum.
5) How is the data store implemented? (i.e. – disk partition, platform filesystem, proprietary filesystem.)	jBASE hashed files are implemented on top of the OS filesystem, instead of trying to manage the disks itself.
6) Integration with Platform	jBASE is native to the operating system, programs become native executables.

Question	Response
a) Is security implemented separately by the product or integrated with the platform for: <ul style="list-style-type: none"> <li>i) Users</li> <li>ii) Filesystem</li> </ul>	As jBASE is a native implementation, it takes full advantage of OS level security for both users and filesystems. Security can also be added at a application level.
b) How is data archived?	jBASE provides tools to archive data but in addition, users can use standard operating system level tools.
c) Are printers and print spooler handled independently by the product, integrated with the platform or left entirely to the platform operating system?	All printers on jBASE, must also be known to the native OS. These printers can be handled either through jBASE or independently through the OS.
d) Are peripherals managed independently by the product, integrated with the platform or left entirely to the platform operating system?	It does depend specifically on the peripheral in question. jBASE can use any peripheral that the OS has a driver for. jBASE also provides the ability to add your own drivers, if necessary, written in jBC and/or C.
e) Is terminal emulation managed independently by the product, integrated with the platform or left entirely to the platform operating system?	Terminal emulation is based on a unix .tic file. JBASE can handle any emulation with a know terminfo file.
f) Is memory managed independently by the product, integrated with the platform or left entirely to the platform operating system?	By the product.
g) How are multiple processors handled? (Directly through the product or indirectly through the operating system)	Usually left to the OS.
h) Can a user configure which processor runs the db?	Not applicable to jBASE. There is not a set of processes that constitute “the database”.
7) Can there be multiple instantiations of the db running concurrently?	Not applicable to jBASE as it is with other MV implementations. However, a machine can easily be configured for any number of user sets each of which has their own “database” invisible to the users in the others sets.

### 3.3.1.2 Features

Question	Response
1) What programming languages are supported? If they aren't included, are they available from you?	Various programming languages can be used to access the jBASE database, either the standard jBASE Basic (jBC) or many other mainstream languages, that can be connected to the database via ODBC or jEDI.
2) What MV-Environment scripting languages are supported? (i.e. - Proc, New Proc, TCL, Paragraphs, ProVerb, Sentences, Native Script Calls)	All of these are supported by jBASE.
3) Which flavors does the product support? (i.e. – Microdata, Prime Information, ADDS/GA, Universe, Pick) a) How is flavor compatibility achieved? b) Is it configured at db installation, compile time or run-time? c) Are user exits supported?	jBASE emulates very specific behaviors of other MV environments through setting and env variable JBC_EMULATE. jBASE was built from the ground up as a migration path from other MV environments, and as such has embedded nearly all of the functionality of the other MV products into the core jBASE product.  Most standard User Exits are supported, plus jBASE gives the user the ability to create their own User Exits.
4) What modes of connectivity are provided for users? (i.e. – Serial connections, telnet over TCP/IP, NFS, other network protocols, ODBC, JDBC, OLEDB, COM)	Telnet over TCP/IP , ODBC, OLEDB, JDBC, COM
5) What kind of terminal emulation is provided?	Terminal emulation is based on a unix .tic file. jBASE can handle any emulation with a know terminfo file..
6) Is a terminal emulation client provided? (Such as wIntegrate) a) What platforms is the client provided for? (i.e. – Windows, Mac) b) If no client is included, is an optional client available and at what price?	jBASE can utilize nearly all terminal emulators, and is shipped with our own jTERMINAL emulator, as well.

Question	Response
<p>7) How does the db integrate to a web server to provide web browser connectivity?</p> <p>a) Is this included? If not, is an optional product available and at what price?</p>	<p>jBASE , due to it's native implementation, can talk easily to the web, though standard mainstream tools, connecting via jBASE ObjEX (DCOM) or JAVA ObjEX to the database, creating CGI in a basic program, or through jBASE Web Builder as an IDE and Application server.</p> <p>Basic/CGI can be achieved with a jBASE Server license, ObjEX tools are included le with a jBASE Enterprise license, and jBASE Web Builder is included with a jBASE E-Commerce license.</p>
<p>8) What tools are provided to administer the database, users, printers and devices?</p>	<p>jBASE is shipped with jEXPLORER, a Java based , GUI adminstraior of the jBASE Database. Using jEXPLORER ,with proper permissions, you can administer the database from anywhere, over the web .</p>
<p>9) How can data be imported? Please specify all possible modes, from one-time migration through real-time connections such as ODBC.</p>	<p>Using jBASE, there is very little need to import data in the traditional MV sense. As a native implementation, you can read directly from OS level files within JBC (jBASE Basic), ODBC connections as well as through our jEDI technology, which allows jBASE programs to read and write to alternative databases seamlessly. There is also access to SQL databases through Embedded SQL in jBC Programs.</p>
<p>10) How can data be exported? Please specify all possible modes, from one-time migration through real-time connections such as ODBC.</p>	<p>Using jBASE, there is very little need to export data in the traditional MV sense. As a native implementation, you can write directly to OS level files within JBC (jBASE Basic), and through ODBC connections as well as through our jEDI technology, which allows jBASE programs to read and write to alternative databases seamlessly.</p>
<p>11) Is transaction logging supported?</p>	<p>jBASE supports a full complement of transaction journaling, transaction logging and hot standby/backup utilities that include transaction boundaries, utilizing a 2- phase commit.</p>
<p>12) Is filesystem journaling supported?</p>	<p>jBASE supports a full complement of transaction journaling, transaction logging and hot standby/backup utilities that include transaction boundaries, utilizing a 2- phase commit</p>



**3.3.1.3 Performance**

Question	Response
1) What are the minimum and maximum number of user connections allowed?	1 to as many as the OS/Hardware will support.
2) What is the maximum number of concurrent users allowed?	1 to as many as the OS/Hardware will support.
3) What is the maximum configuration (users, disk space) currently in use by a customer?	2,000 users 5 TB

**3.3.1.4 Support**

Question	Response
1) How are end-users supported? (i.e. – directly, partners, VAR’s, distributors)	jBASE Software’s support organization is viewed as the PREMIER support group in the MultiValue community. Support is accomplished either via the internet or by phone. jBASE support offices are located around the world and the support analyst responding to an call at 2:00 A.M. may be having breakfast tea in the United Kingdom or ending the business day in Australia.
2) How many support centers and support engineers are there?	3 centers Portland, Oregon - 7 engineers Hemel Hempstead, UK – 6 Sydney, Australia - 4 engineers
3) What is the schedule for baseline support? (i.e.- business hours local to the support center, extended hours, 24x7)	JBASE Offers 2 support contracts: 8x5 standard maintenance or 24x7
4) Is support included in the product and for how long?	No. Separate 15% of license fee.
5) What is the expected turnaround time for a support request?	Most questions are answered in less than 4 hours, some within an hour.

Question	Response
6) What is the cost of extending support?	<p><b>jBASE Server Version:</b>  8X5 Standard Annual Maintenance and Support -- \$52  24X7 Annual Maintenance and Support -- \$77</p> <p><b>jBASE Enterprise Version:</b>  8X5 Standard Annual Maintenance and Support -- \$67  24X7 Annual Maintenance and Support -- \$99</p> <p><b>jBASE e-Commerce Version:</b>  8X5 Standard Annual Maintenance and Support -- \$97  24X7 Annual Maintenance and Support -- \$145</p>
7) What is the primary mode of support? What other modes are also supported? (i.e. – phone, fax, email, web)	E-mail, phone or fax.
8) Does your support web site include a knowledge base for any user to lookup problems and solutions? If so, how many articles are included?	Yes. Approximately 1,800 <a href="http://www.jBASE.com/knowledgebase/index.html">http://www.jBASE.com/knowledgebase/index.html</a>

**3.3.1.5 Documentation**

Question	Response
1) Please list the manuals available for the product.	Programmer's Reference Manual Advanced Programmer's Reference Manual <b>System Administrator's Manual</b>
2) Which documentation is included with the product and in what form?	Documentation is shipped with the product in HTML form.
3) What media is documentation available on? (On-line media should include the format, such as PDF, HTML, Windows Help, etc.)	The documentation is available on-line, downloadable PDF, downloadable HTML.

**3.3.1.6 Training**

Question	Response
1) Do you provide training? If not, are there authorized training partners?	Yes.
2) Where (and how often) are classes conducted?	Yes. Scheduled and as needed. JBASE Professional Services also custom fits training courses, and will hold training a client's site if requested..

**Please list the classes available for the product:**

Details are available at <http://www.jBASE.com/training/index.html>

## 3.4 Northgate Information Systems

### 3.4.1 MultiValue Product Comparison Questionnaire

#### 3.4.1.1 Platforms

Question	Response
1) Identify all platforms (Hardware/Operating System) that your MV database product is distributed on.	Unix on Sun, Unix on DG and NT and windows 2000 platforms
2) Please list your current and next version levels and dates by platform	Current – V9.0 on all support platforms Next - 9.1 on AIX - summer 2002
3) Which platform is your primary development platform?	Sun
4) What is the minimum and maximum disk space supported?	0 to 256GB
5) How is the data store implemented? (i.e. – disk partition, platform filesystem, proprietary filesystem.)	Disk partition and proprietary filesystem
6) Integration with Platform	Yes
a) Is security implemented separately by the product or integrated with the platform for: i) Users ii) Filesystem	By user, location, time and server Integrated and extended by the product
b) How is data archived?	Tape and disk
c) Are printers and print spooler handled independently by the product, integrated with the platform or left entirely to the platform operating system?	Unix – by the product + integrated NT - Integrated
d) Are peripherals managed independently by the product, integrated with the platform or left entirely to the platform operating system?	By the product and integrated with the platform

Question	Response
e) Is terminal emulation managed independently by the product, integrated with the platform or left entirely to the platform operating system?	By the product and integrated with the platform
f) Is memory managed independently by the product, integrated with the platform or left entirely to the platform operating system?	Left to the platform OS
g) How are multiple processors handled? (Directly through the product or indirectly through the operating system)	Indirectly through the OS
h) Can a user configure which processor runs the db?	No because we use all of the processors concurrently in the host platform. Can be yes when using host platform tools
7) Can there be multiple instantiations of the db running concurrently?	Yes

**3.4.1.2 Features**

Question	Response
1) What programming languages are supported? If they aren't included, are they available from you?	Data Basic and Proc C and Java Libraries ProIV
2) What MV-Environment scripting languages are supported? (i.e. - Proc, New Proc, TCL, Paragraphs, ProVerb, Sentences, Native Script Calls)	Proc, New Proc, TCL, RPL
3) Which flavors does the product support? (i.e. – Microdata, Prime Information, ADDS/GA, Universe, Pick) a) How is flavor compatibility achieved? b) Is it configured at db installation, compile time or run-time? c) Are user exits supported?	Microdata (don't understand question)  (b) NA (c) Yes
4) What modes of connectivity are provided for users? (i.e. – Serial connections, telnet over TCP/IP, NFS, other network protocols, ODBC, JDBC, OLEDB, COM)	TCP/IP, ODBC, JDBC, OLEDB
5) What kind of terminal emulation is provided?	Reality RealLink
6) Is a terminal emulation client provided? (Such as wIntegrate) a) What platforms is the client provided for? (i.e. – Windows, Mac) b) If no client is included, is an optional client available and at what price?	Yes for Windows

Question	Response
7) How does the db integrate to a web server to provide web browser connectivity? a) Is this included? If not, is an optional product available and at what price?	Via servelets and remote basic
8) What tools are provided to administer the database, users, printers and devices?	Suite of Databasic Admin. Tools
9) How can data be imported? Please specify all possible modes, from one-time migration through real-time connections such as ODBC.	Yes using ODBC, JDBC, one time migrations and host file access via DIR-View Custom C programs using supplied Rfc library
10) How can data be exported? Please specify all possible modes, from one-time migration through real-time connections such as ODBC.	Yes using ODBC. JDBC one time migrations and DIR-View
11) Is transaction logging supported?	Yes
12) Is filesystem journaling supported?	No (in development)

### 3.4.1.3 Performance

Question	Response
1) What are the minimum and maximum number of user connections allowed?	No limits
2) What is the maximum number of concurrent users allowed?	No limit
3) What is the maximum configuration (users, disk space) currently in use by a customer?	2,008 users and 256GB disk

**3.4.1.4 Support**

Question	Response
1) How are end-users supported? (i.e. – directly, partners, VAR’s, distributors)	Directly and by VARs
2) How many support centers and support engineers are there?	10 centers and 190 engineers
3) What is the schedule for baseline support? (i.e.- business hours local to the support center, extended hours, 24x7)	Baseline is business hours local to the users Extended and 24x7 are available
4) Is support included in the product and for how long?	Required
5) What is the expected turnaround time for a support request?	Two hours
6) What is the cost of extending support?	Determined by the hours and days of coverage
7) What is the primary mode of support? What other modes are also supported? (i.e. – phone, fax, email, web)	Phone and email. Web support this Spring
8) Does your support web site include a knowledge base for any user to lookup problems and solutions? If so, how many articles are included?	Spring 2002



**3.4.1.5 Documentation**

Question	Response
1) Please list the manuals available for the product.	The list is too long to list here
2) Which documentation is included with the product and in what form?	All of the manuals on CD or can be ordered as hard copy
3) What media is documentation available on? (On-line media should include the format, such as PDF, HTML, Windows Help, etc.)	CD - HTML

**3.4.1.6 Training**

Question	Response
1) Do you provide training? If not, are there authorized training partners?	Yes
2) Where (and how often) are classes conducted?	Classes are conducted when requested

**Please list the classes available for the product:**

We have classes on any subject relative to Reality

## 3.5 Raining Data

### 3.5.1 MultiValue Product Comparison Questionnaire

#### 3.5.1.1 Platforms

Question	Response
1) Identify all platforms (Hardware/Operating System) that your MV database product is distributed on.	NT, Linux, AIX, HP/UX, Solaris, Unixware, SCO Open Server 5
2) Please list your current and next version levels and dates by platform	Q1-Q2' 2002 (mvBase 2.0, mvEnterprise 5.0 and D3 8.0)
3) Which platform is your primary development platform?	AIX, Linux, NT
4) What is the minimum and maximum disk space supported?	Up to 2 TB in Linux, no limit on other platforms
5) How is the data store implemented? (i.e. – disk partition, platform filesystem, proprietary filesystem.)	All mentioned
6) Integration with Platform	complete
a) Is security implemented separately by the product or integrated with the platform for: i) Users ii) Filesystem	User defined
b) How is data archived?	On hierarchal data store
c) Are printers and print spooler handled independently by the product, integrated with the platform or left entirely to the platform operating system?	Completely integrated with O/S
d) Are peripherals managed independently by the product, integrated with the platform or left entirely to the platform operating system?	Completely integrated

Question	Response
e) Is terminal emulation managed independently by the product, integrated with the platform or left entirely to the platform operating system?	Yes and no. Depends on usage
f) Is memory managed independently by the product, integrated with the platform or left entirely to the platform operating system?	Multiple configurations are available. User defined
g) How are multiple processors handled? (Directly through the product or indirectly through the operating system)	Indirectly through the OS
h) Can a user configure which processor runs the db?	Yes (depending on O/S tools available)
7) Can there be multiple instantiations of the db running concurrently?	Yes

**3.5.1.2 Features**

Question	Response
1) What programming languages are supported? If they aren't included, are they available from you?	BASIC, C natively and Java externally.
2) What MV-Environment scripting languages are supported? (i.e. - Proc, New Proc, TCL, Paragraphs, ProVerb, Sentences, Native Script Calls)	PROC, TCL, paragraphs, macros, sentences.
3) Which flavors does the product support? (i.e. – Microdata, Prime Information, ADDS/GA, Universe, Pick) a) How is flavor compatibility achieved? b) Is it configured at db installation, compile time or run-time? c) Are user exits supported?	Native PICK flavor for D3 MvEnterprise has Prime extensions  User defined configuration  Yes, user exits are supported including C external calls.
4) What modes of connectivity are provided for users? (i.e. – Serial connections, telnet over TCP/IP, NFS, other network protocols, ODBC, JDBC, OLEDB, COM)	Serial, telnet, TCP/IP. ODBC, OLE/DB, JDBC, COM, RPC Class libraries and sockets
5) What kind of terminal emulation is provided?	All the most popular terminal emulations are pre-configured and a soft configuration utility is provided
6) Is a terminal emulation client provided? (Such as wIntegrate) a) What platforms is the client provided for? (i.e. – Windows, Mac) b) If no client is included, is an optional client available and at what price?	a) No b) Accuterm
7) How does the db integrate to a web server to provide web browser connectivity? a) Is this included? If not, is an optional product available and at what price?	Via FlashCONNECT and any other connectivity products supported. FC is free of charge and included in the db

Question	Response
8) What tools are provided to administer the database, users, printers and devices?	Built-in
9) How can data be imported? Please specify all possible modes, from one-time migration through real-time connections such as ODBC.	Via our Open Systems File Interface (OSFI) bridge and other connectivity tools such as ODBC, OLE/DB and RPC class libraries
10) How can data be exported? Please specify all possible modes, from one-time migration through real-time connections such as ODBC.	Same mechanism
11) Is transaction logging supported?	Yes
12) Is filesystem journaling supported?	Yes

### 3.5.1.3 Performance

Question	Response
1) What are the minimum and maximum number of user connections allowed?	Single user and no upper limit
2) What is the maximum number of concurrent users allowed?	Unlimited
3) What is the maximum configuration (users, disk space) currently in use by a customer?	

**3.5.1.4 Support**

Question	Response
1) How are end-users supported? (i.e. – directly, partners, VAR’s, distributors)	VARs and directly
2) How many support centers and support engineers are there?	There are 3 support centers and over 25 support engineers.
3) What is the schedule for baseline support? (i.e.- business hours local to the support center, extended hours, 24x7)	12 x 5 + 8 (Saturday)
4) Is support included in the product and for how long?	For one year
5) What is the expected turnaround time for a support request?	Depends on the problem severity but all customers should receive a return call within 4 business hours.
6) What is the cost of extending support?	% of List price
7) What is the primary mode of support? What other modes are also supported? (i.e. – phone, fax, email, web)	Web and phone support
8) Does your support web site include a knowledge base for any user to lookup problems and solutions? If so, how many articles are included?	Yes

**3.5.1.5 Documentation**

Question	Response
1) Please list the manuals available for the product.	Quick Start, Reference Manual
2) Which documentation is included with the product and in what form?	All on PDF, HTML on CD. Hard copy is available when required
3) What media is documentation available on? (On-line media should include the format, such as PDF, HTML, Windows Help, etc.)	See above

**3.5.1.6 Training**

Question	Response
1) Do you provide training? If not, are there authorized training partners?	Yes
2) Where (and how often) are classes conducted?	Regular scheduled classes <a href="http://www.rainingdata.com">http://www.rainingdata.com</a>

**Please list the classes available for the product:**

Go to <http://www.rainingdata.com/education/index.html> and click on the course you are interested in for the current schedule.

## 3.6 Revelation Software

### 3.6.1 MultiValue Product Comparison Questionnaire

#### 3.6.1.1 Platforms

Question	Response
1) Identify all platforms (Hardware/Operating System) that your MV database product is distributed on.	Revelation, Advanced Revelation, and OpenInsight run on PCs running DOS or any Windows version, Linux running Samba.  JOI- Java for OpenInsight, runs on any platform with a JVM.
2) Please list your current and next version levels and dates by platform	Current: Advanced Revelation - 3.12 Revelation - G2B OpenInsight - 4.0.1 JOI- 2.1  Next: OpenInsight 4.1, due August 2002 JOI- 2.2, due September 2002
3) Which platform is your primary development platform?	PCs running Windows NT or Windows 2000
4) What is the minimum and maximum disk space supported?	Minimum: 30 Meg Maximum: 4 Gig per OS file, so a maximum of 8 gig per table
5) How is the data store implemented? (i.e. – disk partition, platform filesystem, proprietary filesystem.)	Proprietary Filesystem
6) Integration with Platform	
a) Is security implemented separately by the product or integrated with the platform for: i) Users ii) Filesystem	Both. The Applications have account, username and password capabilities, and platforms can restrict access based upon user rights.
b) How is data archived?	Usually into separate files using the same filing system, or onto Tape, CD, disk, etc.
c) Are printers and print spooler handled independently by the product, integrated with the platform or left entirely to the platform operating system?	Printers are integrated with the platform and the product. Our products can initialize printers, change orientation, font, etc. Spooling can either be handled internally or left to the OS.



Question	Response
d) Are peripherals managed independently by the product, integrated with the platform or left entirely to the platform operating system?	Peripherals are managed by the OS.
e) Is terminal emulation managed independently by the product, integrated with the platform or left entirely to the platform operating system?	Both. In Arev and RevG we had terminal emulators built into the products.
f) Is memory managed independently by the product, integrated with the platform or left entirely to the platform operating system?	Left entirely to the OS.
g) How are multiple processors handled? (Directly through the product or indirectly through the operating system)	Indirectly through the OS.
h) Can a user configure which processor runs the db?	No
7) Can there be multiple instantiations of the db running concurrently?	Yes

### 3.6.1.2 Features

Question	Response
1) What programming languages are supported? If they aren't included, are they available from you?	R/Basic for the Arev and RevG, Basic+ for OpenInsight, and Java for JOI.
2) What MV-Environment scripting languages are supported? (i.e. - Proc, New Proc, TCL, Paragraphs, ProVerb, Sentences, Native Script Calls)	RevG: Proc, TCL Arev: TCL, SQL OI: TCL, SQL JOI: SQL
3) Which flavors does the product support? (i.e. – Microdata, Prime Information, ADDS/GA, Universe, Pick) a) How is flavor compatibility achieved? b) Is it configured at db installation, compile time or run-time? c) Are user exits supported?	We can access different flavors via BFS and telnet. We can do the equivalent of user exits in that we can call ASM or API functions via DLLs.
4) What modes of connectivity are provided for users? (i.e. – Serial connections, telnet over TCP/IP, NFS, other network protocols, ODBC, JDBC, OLEDB, COM)	TCP/IP, IPX, ODBC, COM, API
5) What kind of terminal emulation is provided?	RevG: Terminal Emulation via R/Comm Arev: Built in Terminal Emulation
6) Is a terminal emulation client provided? (Such as wIntegrate) a) What platforms is the client provided for? (i.e. – Windows, Mac) b) If no client is included, is an optional client available and at what price?	No. Our RevG, Arev, and OI applications run on any Windows PC, while our JOI applications can run on any platform that has a Java Virtual Machine (JVM)

Question	Response
<p>7) How does the db integrate to a web server to provide web browser connectivity?</p> <p>a) Is this included? If not, is an optional product available and at what price?</p>	<p>A CGI gateway is provided with the product to allow testing and development. Deploying to the web requires a Web Deployment Pack, which costs about \$5,000.</p>
<p>8) What tools are provided to administer the database, users, printers and devices?</p>	<p>We have a tool called the Database Manager. User Maintenance, file maintenance, and Index maintenance is performed here. Printers are left to the OS.</p>
<p>9) How can data be imported? Please specify all possible modes, from one-time migration through real-time connections such as ODBC.</p>	<p>Data can be imported through existing import tools for ASCII, or through an ODBC connection that will allow us to import data from any ODBC data source. Using the programming language, nearly every data source available can be queried and the data brought into our products.</p>
<p>10) How can data be exported? Please specify all possible modes, from one-time migration through real-time connections such as ODBC.</p>	<p>Data can be exported in even more ways than it can be imported. Our reporting tools let users export in HTML, PDF, RTF, or plain text format. We can put data directly into suites like MS Office using either a web gateway or DDE. Exporting tools allow users to export in ASCII, CSV, EBCDIC, and more. Our ODBC tools let us put data into any ODBC compliant data source. Programmatically, developers can put the data out into about any format they want.</p>
<p>11) Is transaction logging supported?</p>	<p>Yes</p>
<p>12) Is filesystem journaling supported?</p>	<p>Yes, via a built-in repository. The user can extend the repository to track data changes.</p>

### 3.6.1.3 Performance

Question	Response
<p>1) What are the minimum and maximum number of user connections allowed?</p>	<p>Minimum of 1, maximum of Unlimited.</p>
<p>2) What is the maximum number of concurrent users allowed?</p>	<p>Unlimited</p>
<p>3) What is the maximum configuration (users, disk space) currently in use by a customer?</p>	<p>350 users, 10 gig worth of database</p>

**3.6.1.4 Support**

Question	Response
1) How are end-users supported? (i.e. – directly, partners, VAR’s, distributors)	End users can call Revelation Software directly at 800-262-4747. They also call our partners and VARs.
2) How many support centers and support engineers are there?	2 support centers, 6 engineers. We only need so few because of the stability of the product, and because of the savvy of the community as seen in our on-line discussion group at Revelation.com
3) What is the schedule for baseline support? (i.e.- business hours local to the support center, extended hours, 24x7)	US: 7:00am-6:00pm EST AUS 9:00-5:00pm GMT-10
4) Is support included in the product and for how long?	There is 30-day installation support.
5) What is the expected turnaround time for a support request?	Immediate in most cases, a few hours or next day in the worst case.
6) What is the cost of extending support?	Most developers sign up for an annual Works subscription, a program that provides technical support, free upgrades, and access to a special section of our website. This subscription costs \$1,595 for the first year, \$995 per year afterwards.
7) What is the primary mode of support? What other modes are also supported? (i.e. – phone, fax, email, web)	Phone is the primary. We also support fax, email, and web.
8) Does your support web site include a knowledge base for any user to lookup problems and solutions? If so, how many articles are included?	Yes. We have many (500+) knowledgebase articles, Technical Bulletins, white papers, and a searchable on-line discussion group that also contains many technical answers. We have a strong, technically-minded user base that give great technical answers on our online discussion group.

**3.6.1.5 Documentation**

Question	Response
1) Please list the manuals available for the product.	Revelation: User's Guide Technical Reference Tutorial Revelation Workstation Manual  Advanced Revelation: User's Guide R/Basic Manual Reference Manual System Subroutines MFS Reference  OpenInsight: Getting Started in OpenInsight Native Tables Reference Programmer's Reference Guide to Application Development
2) Which documentation is included with the product and in what form?	Revelation: User's Guide Technical Reference Tutorial  Advanced Revelation: User's Guide R/Basic Manual Reference Manual  OpenInsight: Getting Started with OpenInsight  JOI Getting started with JOI
3) What media is documentation available on? (On-line media should include the format, such as PDF, HTML, Windows Help, etc.)	Documentation is available as Printed Documents, PDF, HTML, Windows Help, and JavaDoc.

**3.6.1.6 Training**

Question	Response
1) Do you provide training? If not, are there authorized training partners?	Yes we do. There are also authorized training partners.
2) Where (and how often) are classes conducted?	Classes are conducted every month at our facilities, and many other times by our training centers. We also offer classes upon request, either at our facilities or on-site.

**Please list the classes available for the product:**

Regularly Scheduled:

Introduction to Development in OpenInsight  
 Advanced Basic+ Programming  
 DDE and Data Warehousing with OpenInsight  
 Internet Access with OpenInsight  
 Web Boot Camp  
 Introduction to Development in JOI

Upon Request:

Introduction to Development with Advanced Revelation  
 Continuing Development with Advanced Revelation  
 Programming in Advanced Revelation  
 Using Advanced Revelation Applications I  
 Using Advanced Revelation Applications II

## 3.7 Via Systems

### 3.7.1 MultiValue Product Comparison Questionnaire

#### 3.7.1.1 Platforms

Question	Response
1) Identify all platforms (Hardware/Operating System) that your MV database product is distributed on.	Unix: SVR4, AIX 4.x, SCO OpenServer 5.x, UnixWare 7.x Linux: RedHat 6.1,6.2,7.0,7.1; Caldera Windows: NT, 2000
2) Please list your current and next version levels and dates by platform	Current: 8.0.6 all platforms
3) Which platform is your primary development platform?	SVR4 Unix
4) What is the minimum and maximum disk space supported?	Min. 2GB Max. restricted by platform OS
5) How is the data store implemented? (i.e. – disk partition, platform filesystem, proprietary filesystem.)	Native filesystem (store) implemented in Platform filesystem
6) Integration with Platform	
a) Is security implemented separately by the product or integrated with the platform for: i) Users ii) Filesystem	i) both traditional Pick-style user security and platform security are available ii) filesystem security is done by the product in traditional Pick fashion (though underlying ‘store’ files on platform of course must comply with platform security)
b) How is data archived?	Traditional Pick-style FILE-SAVE, T-DUMP, etc. commands, and/or platform utilities
c) Are printers and print spooler handled independently by the product, integrated with the platform or left entirely to the platform operating system?	Integrated with the platform
d) Are peripherals managed independently by the product, integrated with the platform or left entirely to the platform operating system?	Integrated with the platform

Question	Response
e) Is terminal emulation managed independently by the product, integrated with the platform or left entirely to the platform operating system?	Integrated with the platform
f) Is memory managed independently by the product, integrated with the platform or left entirely to the platform operating system?	Left entirely to the platform operating system
g) How are multiple processors handled? (Directly through the product or indirectly through the operating system)	Through the operating system
h) Can a user configure which processor runs the db?	Only through any available operating system commands
7) Can there be multiple instantiations of the db running concurrently?	yes



### 3.7.1.2 Features

Question	Response
1) What programming languages are supported? If they aren't included, are they available from you?	Data/Basic internally, C/C++/Cobol/Visual Basic/etc. external links
2) What MV-Environment scripting languages are supported? (i.e. - Proc, New Proc, TCL, Paragraphs, ProVerb, Sentences, Native Script Calls)	Proc, New Proc, TCL. Native scripts can be executed through UEXECUTE or “!” at TCL
3) Which flavors does the product support? (i.e. – Microdata, Prime Information, ADDS/GA, Universe, Pick) <ul style="list-style-type: none"> <li>a) How is flavor compatibility achieved?</li> <li>b) Is it configured at db installation, compile time or run-time?</li> <li>c) Are user exits supported?</li> </ul>	ADDS, R83, Advanced Pick <ul style="list-style-type: none"> <li>d) command switches and/or filing system configuration</li> <li>e) db installation and run-time</li> <li>f) yes</li> </ul>
4) What modes of connectivity are provided for users? (i.e. – Serial connections, telnet over TCP/IP, NFS, other network protocols, ODBC, JDBC, OLEDB, COM)	Serial, telnet, proprietary network protocol, ODBC, NFS (through underlying platform support). COM and OLEDB support through object interface.
5) What kind of terminal emulation is provided?	Whatever the underlying platform supports (eg, via terminfo database)
6) Is a terminal emulation client provided? (Such as wIntegrate) <ul style="list-style-type: none"> <li>a) What platforms is the client provided for? (i.e. – Windows, Mac)</li> <li>b) If no client is included, is an optional client available and at what price?</li> </ul>	ViaDuct for Windows (optional or included, dependent on platform)

Question	Response
7) How does the db integrate to a web server to provide web browser connectivity? a) Is this included? If not, is an optional product available and at what price?	Through either WebWizard or Quantum VS (both optional)
8) What tools are provided to administer the database, users, printers and devices?	UniVision Setup utilities, graphical control console, UVTools command menu, SYSPROG management menu, and traditional Pick-style commands
9) How can data be imported? Please specify all possible modes, from one-time migration through real-time connections such as ODBC.	Using ViaDuct terminal emulator Using ODBC Using T-LOAD, ADD-ACCOUNTS, etc. Using "linked" files to platform directories
10) How can data be exported? Please specify all possible modes, from one-time migration through real-time connections such as ODBC.	Using ViaDuct terminal emulator Using ODBC Using T-DUMP, ACCOUNT-SAVE, etc. Using "linked" files to platform directories
11) Is transaction logging supported?	No
12) Is filesystem journaling supported?	Yes

### 3.7.1.3 Performance

Question	Response
1) What are the minimum and maximum number of user connections allowed?	Min. 1 Max. unlimited
2) What is the maximum number of concurrent users allowed?	Dependent on platform configuration
3) What is the maximum configuration (users, disk space) currently in use by a customer?	

**3.7.1.4 Support**

Question	Response
1) How are end-users supported? (i.e. – directly, partners, VAR’s, distributors)	Directly, VAR’s, and distributors
2) How many support centers and support engineers are there?	7 centers, 15 engineers
3) What is the schedule for baseline support? (i.e.- business hours local to the support center, extended hours, 24x7)	Business hours local to the support center. Extended hours by contract.
4) Is support included in the product and for how long?	1. Annual support must be purchased
5) What is the expected turnaround time for a support request?	Within 3 hours
6) What is the cost of extending support?	
7) What is the primary mode of support? What other modes are also supported? (i.e. – phone, fax, email, web)	Phone is primary. Web, fax and email also supported.
8) Does your support web site include a knowledge base for any user to lookup problems and solutions? If so, how many articles are included?	Searchable on-line help

**3.7.1.5 Documentation**

Question	Response
1) Please list the manuals available for the product.	UniVision System Administration Guide Guide to the UniVision System UniVision Command Reference Guide (vols. 1 and 2) UniVision BASIC Reference Guide UniVision Database Processes Guide UniVision Advanced Technical Support Guide UniVision SQL/ODBC Reference Guide
2) Which documentation is included with the product and in what form?	All of the above manuals in electronic (HTML) format, and most is also available in on-line help at TCL
3) What media is documentation available on? (On-line media should include the format, such as PDF, HTML, Windows Help, etc.)	Printed manuals, and electronic versions in HTML

**3.7.1.6 Training**

Question	Response
1) Do you provide training? If not, are there authorized training partners?	Yes
2) Where (and how often) are classes conducted?	On a per-installation basis as required

**Please list the classes available for the product:**

## 4. Product Testing

### 4.1 Overview

Our evaluation included the following criteria:

<p>Installation of the database product:</p> <p>We recorded the product name, version and media.</p> <p>We noted the time to load in minutes.</p> <p>The ease of the installation was scored (0=worst/10=best).</p> <p>We recorded the disk space consumed by the database in megabytes.</p> <p>We scored the install path flexibility (0=worst/10=best).</p> <p>We scored the authorization process (0=worst/10=best).</p> <p>We scored the technical support response(0=worst/10=best).</p> <p>Please note that in all cases NT system administration experience was required. Our Senior Consultant, Terry McCully, is a Windows 2000 Microsoft Certified Professional, and many tasks were extremely easy that would not have been for someone without this experience.</p>
<p>Migration of an account to the database. The account derived from an Advanced Pick Pro native system. The application manages title and deed documents. There were 63 programs in the BP file, 23 data files, and a total account size of 4.5 megabytes. (0=worst/10=best)</p>
<p>Successful compilation and execution of the basic programs. (0=worst/10=best)</p>
<p>Setup and test of a 4mm tape drive. (0=worst/10=best)</p>
<p>Setup and test of a network printer. (0=worst/10=best)</p>
<p>Setup and test of user logins. (0=worst/10=best)</p>

Modular apologizes to Revelation Software for not realizing that we needed Advanced Revelation to complete our testing. Modular will be re-testing and will publish the results in an updated document by May 31<sup>st</sup>, 2002.

Modular apologizes to Raining Data Corporation for not realizing that we needed an account save without object code to load onto mvBase and subsequently to complete our testing. Modular will be re-testing and will publish the results in an updated document by May 31<sup>st</sup>, 2002.

## 4.2 IBM Corporation

### 4.2.1 Universe

Item	MV Database evaluation	
	Result	Notes
Vendor	IBM/Informix	
Product	Universe	
Version	9.6.1.2	
Media	CD	
Install time (minutes)	4 Minutes	
Ease of install (0 = worst, 10 = best)	9	
Start disk free space	1.76 GB	30 MB utilized by db installation
End disk free space	1.73 GB	
Install Path Flexibility	10	
Level Tech Support	10	Didn't need to call this time but have had good results before. Awarding credit for being good in the past.
Ease to install users	9	Users defined in NT User Manager work automatically within the UniVerse database.
Ease to install printers	9	If the printer is established in NT as a network printer, and the naming convention is correct, the printer is automatically available within the database environment.
Ease to install tape drive	7	Using UV Admin, it was easy. We found that there is a problem if Backup Exec is installed on same machine. Removing Backup Exec resolved problem.
Authorization Key	9	One key needed
Ease to load account	9	Using UV Admin, it was easy to import the account. Backward compatibility not needed.
Program file compile & execution success	9	All programs that compiled and executed.

## 4.2.2 Unidata

Item	MV Database evaluation Result	Notes
Vendor	IBM/Informix	
Product	Unidata	
Version	5.2.9	
Media	CD	
Install time (minutes)	3 Minutes	
Ease of install (0 = worst, 10 = best)	9	
Start disk free space	3.31 GB	100 MB utilized by db
End disk free space	3.21 GB	
Install Path Flexibility	10	
Level Tech Support	7	Wasn't getting a quick response until Ron Spencer got involved and then Jim Abshire was a wonderful help.
Ease to install users	9	Uses UniData Admin
Ease to install printers	9	Automatically there from NT
Ease to install tape drive	9	Uses NT tape naming convention to assign tape with SETTAPE verb
Authorization Key	7	There is a different key for each component of Unidata: Unidata, Dynamic Connect, ODBC etc
Ease to load account	6	ACCT_RESTORE command had a bug so we had to dd into SCO machine and ftp over to UniData. Required alternate system resources and knowledge.
Program file compile & execution success	7	Compile errors related to problems with DATE() command and dimensioned arrays.

### 4.3 jBASE Software

Item	MV Database evaluation Result	Notes
Vendor	JBASE	
Product	JBASE	
Version	3.4.1	
Media	CD	
Install time (minutes)	3 Minutes	
Ease of install (0 = worst, 10 = best)	9	
Start disk free space	3.53 GB	30 MB utilized by the database
End disk free space	3.50 GB	
Install Path Flexibility	10	
Level Tech Support	10	Their JBASE Knowledge base on-line is great. Support is 24/7 due to worldwide support.
Ease to install users	9	Just uses NT users after setting up a work directory
Ease to install printers	9	Execute SP-NEWTAB and you are set
Ease to install tape drive	9	Already came with different tape configurations which included 4mm DAT
Authorization Key	8	We had evaluation copy but key said for eCommerce so there was some initial confusion
Ease to load account	8	Loaded from backward compatible tape. Instructions on JBASE Knowledge Base. Had to create directory name first.
Program file compile & execution success	6	Must have Microsoft C++ to compile. Must run PORTBAS to find 'Reserved Words' before compiling. A few still did not compile. Menu worked with some functionality



## 4.4 Northgate Information Solutions

MV Database evaluation		
Item	Result	Notes
Vendor	Northgate Information Solutions	
Product	Reality	
Version	9	
Media	CD	
Install time (minutes)	4 Minutes	
Ease of install (0 = worst, 10 = best)	9	
Start disk free space	3.13 GB	130 MB utilized for database (Documentation says needs 150 MB)
End disk free space	3.00 GB	
Install Path Flexibility	7	Only allows drive letter change
Level Tech Support	10	
Ease to install users	7	Must go through the SSM menu for Network, Users and Security (default for users is disabled)
Ease to install printers	7	Must go through the SPM menu to set up a Despooler and the attach to printer etc.
Ease to install tape drive	8	Uses NT tapes but assigns NT TAPE0 to TAPE1. Then must use the ASSIGN command and from there it is easier.
Authorization Key	6	The documentation was a little mixed up so had to call for help. There are two keys (serial number key & license key both 24 chars) Authorization keys are only valid for one day, which is a hassle if you don't know when you are going to install.
Ease to load account	9	Had to do 2 T-FWDs but otherwise it restored nicely
Program file compile & execution success	8	Couldn't get account updated to Reality verbs with UPDATE-ACCOUNT so had to copy verbs in by hand. Programs all compiled and executed.

## 4.5 Raining Data

### 4.5.1 D3 NT

		MV Database evaluation	
Item	Result	Notes	
Vendor	Raining Data Corporation		
Product	D3 NT		
Version	7.2.0		
Media	CD		
Install time (minutes)	2 Minutes		
Ease of install (0 = worst, 10 = best)	9		
Start disk free space	3.25 GB	100 MB utilized by database	
End disk free space	3.15 GB		
Install Path Flexibility	10		
Level Tech Support	10		
Ease to install users	9	Edit USERS file, copy in one already there and alter it or use user setup feature. Easy either way.	
Ease to install printers	6	Had to figure out which port was available for "serial" NT printer then use 'dev-make' verb	
Ease to install tape drive	9	Used 'dev-make' verb with NT Universal Naming Convention just like it says in the instructions	
Authorization Key	7	Have to call in with data from authorization screen to get "magic number"	
Ease to load account	9	Loaded from original account-save tape backward compatibility not needed	
Program file compile & execution success	9.5	All but one program compiled: BREAK KEY ON failed	

## 4.5.2 mvBase

Item	MV Database evaluation Result	Notes
Vendor	Raining Data Corporation	
Product	mvBase	
Version	2.0 Beta	
Media	CD	
Install time (minutes)	2 Minutes	
Ease of install (0 = worst, 10 = best)	9	
Start disk free space	3.24 GB	110 MB utilized by the database
End disk free space	3.13 GB	
Install Path Flexibility	10	
Level Tech Support	10	
Ease to install users	9	Uses NT User Manager.
Ease to install printers	9	Uses NT printer name to establish mvBase printer
Ease to install tape drive	7	Have to have server application stopped to install tape drive. The instructions neglected to mention this. Had to call for support
Authorization Key	N/A	Beta didn't ask for key
Ease to load account	7	Had to be backward compatible. Didn't know that you can't load object code so the restore blew up. Error at BP file indicating out of disk space. Wasn't obvious what the problem was until we called for help. Once we obtained an account-save tape, which had no object code in it and was also backward compatible (using the 'C' option), the restore was flawless. The UPGRADE verb did not seem to copy NEWAC into the new account (although it was supposed to) so I did it manually. NOTE: It took 10 steps to migrate an account from Advanced Pick to mvBase.
Program file compile & execution success	9	All programs compiled and ran perfectly.

## 4.6 Revelation Software

Item	MV Database evaluation Result	Notes
Vendor	Revelation	
Product	OpenInsight	
Version	4.0.1	
Media	CD	
Install time (minutes)	1 Minute	
Ease of install (0 = worst, 10 = best)	9	
Start disk free space	3.50 GB	30 MB utilized by database.
End disk free space	3.47 GB	
Install Path Flexibility	10	
Level Tech Support	10	
Ease to install users	9	Go through windows type menus to add
Ease to install printers	10	Automatically there from NT
Ease to install tape drive	9	Uses NT tapes
Authorization Key	N/A	
Ease to load account	0	<p>Can't load directly to OpenInsight. Have to go through Advanced Revelation first. Vendor did not provide Advanced Revelation to Modular initially. Modular requested Advanced Revelation for a retest, but due to the age of Advanced Revelation, the migration documentation has been misplaced and we were unable to complete this test.</p> <p>NOTE: Revelation tried very hard to help us with this part of the evaluation. As a result they have commissioned a document for the MV application developer that explains converting a MultiValue platform to OpenInsight.</p> <p>They also have a new set of tools for converting programs and files (screens must be done by hand). These tools will be part of their 4.1 release due out in August.</p>
Program file compile & execution success	N/A	See above

## 4.7 Via Systems

MV Database evaluation		
Item	Result	Notes
Vendor	Via Systems	
Product	Univision NT	
Version	7.0.6	
Media	CD	
Install time (minutes)	6 Minutes	
Ease of install (0 = worst, 9 10 = best)		
Start disk free space	3.65 GB	130 MB utilized by database
End disk free space	3.52 GB	
Install Path Flexibility	10	
Level Tech Support	10	
Ease to install users	7	Create users as Q-pointers to accounts. Had to call to find out.
Ease to install printers	7	Had to know what serial process the printer was on by typing LISTPRO. Had to call to find out.
Ease to install tape drive	9	Saw tape as NT saw it (\\.\TAPE0) in tape configuration program then just had to tell Univision it was 4mm.
Authorization Key	6	Had to enter 6 different 10-digit codes
Ease to load account	8	Tape had to be backward compatible (option 'C')
Program file compile & execution success	10	Every program that compiled on the original system, compiled on the Univision system



## 5. 3<sup>rd</sup> Party Software Products by Platform

Product Name	Company Name	Functionality	AP									
			Pro	D3	jBASE	mvBase	mvEnterprise	Reality	Revelation	UniData	UniVerse	UniVision
1Mage	1Mage	Document Scanning	Y	Y		Y	Y		Y	Y	Y	Y
AccuTerm 2000	AccuSoft Enterprises	GUI Front-end	Y	Y	Y	Y	Y	Y	Y		Y	Y
AccuTerm 2000 Internet Edition	AccuSoft Enterprises	Web Development	Y	Y	Y	Y	Y	Y	Y		Y	Y
Amplexus Print Server	Amplexus Corporation	Printing Applications		Y								
Amplexus Signature Capture	Amplexus Corporation	Signature Capture		Y								
AnzioLite/AnzioWin	Rasmussen Software	Terminal Emulation	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Artesian	Human Interface Technologies, Inc.	Touch Screen Development	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
AVRAD	Avexxis Corporation	Application Development		Y		Y	Y				F	Y
Brience Mobile Platform	Strategy 7 Corporation	Middleware Cross platform/database compatibility	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
ConX	The Systems House, Inc.	Web Interface									Y	
Coyote/PicLan-IP D4 Application Software	EasyCo LLC	Web Interface	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Generator	Pick Professional Center	Application Development	Y	Y								Y
DataStage	Ascential Software	Application Development									Y	Y
Dynamo/DynaTerm	SpinOff Ltd	Application Development									Y	Y
E3/Commerce	Amplexus Corporation	eCommerce		Y								
Easy-Gateways	EasyCo LLC	Telnet Interface	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Eloquent	Eloquent Systems Inc.	Application Development				Y						
WebGENCAT												

Product Name	Company Name	Functionality	AP										
			Pro	D3	jBASE	mvBase	mvEnterprise	Reality/X	Revelation	UniData	UniVerse	UniVision	
Email for MultiValue eTools	WordMark International Corporation	Email		Y	Y		Y				Y	Y	
eUHL	GA Express P/L Sysmark Information Systems, Inc.	Data Input/Export Application Development	Y	Y			Y		Y				Y
Exceler@te	@Better Results, Inc.	Cross platform/database integration	Y	Y	Y		Y		Y		Y	Y	Y
EZGO	Open Systems Professionals PTY Limited	Application Development		F	F						F	Y	
EZRG	Open Systems Professionals PTY Limited	Reporting Tool		F	F						F	Y	
FRED	Relational Data Concepts Sunergos Software, LLC.	Programming Editore Application Development	Y	Y	Y		Y		Y		Y	Y	Y
HyperEDIT	Total Computing Solutions, LLC	GUI									Y	Y	
IntegriView Intrepid Email Bridge	Amplexus Corporation	Email		Y									
Keyword Logmon Mac emulation suite	WordMark International Corporation Computronics	Desktop Office Tools Monitoring	Y								Y	Y	
MITS MITS Product Suite	Carnation Software Management Information Tools, Inc.	Terminal Emulation	Y	Y	Y		Y		Y		Y	Y	Y
	IBM	Analytical Tools		Y	Y		Y				Y	Y	
Mobilitee	Virtuant Corporation	Cross platform/database integration	F	F							Y	Y	



Product Name	Company Name	Functionality	AP										
			Pro	D3	jBASE	mvBase	mvEnterprise	Reality/X	Revelation	UniData	UniVerse	UniVision	
MV Access	MV Technologies	Database Administration		Y							Y	Y	
MV Authorize	MV Technologies	Credit Card Processing		Y		Y				Y	Y	Y	
mvComponents Suite 2.0	VantagePoint Software, Inc.	Application Development		Y	Y	Y		Y			Y	Y	
mvConduit	Natec Systems Corp	PDA Compatibility		Y							Y	Y	
mvControls	Natec Systems Corp	GUI Front-end		Y							Y	Y	
MVI INTERNET	Infinetivity	Internet Data Management									Y		
MvInternet	infinetivity, Inc.	Web Development		Y	Y	Y		Y			Y	Y	
MvLaser	Binary Star Corporation	Printing Applications	Y	Y	Y	Y		Y	Y		F	Y	Y
mvOffice	WordMark International Corporation	Desktop Office Tools	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y
mvOFFICE	PANAMINT VENTURES	Desktop Office Tools	Y	Y		Y		Y	Y	Y	Y	Y	Y
mvQuery	WordMark International Corporation	Cross platform/database integration		F							F	Y	
Nucleus AE	Binary Star Corporation	Application Development	Y	Y	Y	Y		Y	Y		F	Y	Y
OneUp	FarSight Technologies, Ltd.			Y									
ONware	ON Corporation	Cross platform/database integration		Y							Y	Y	
OpSys/Forge Peek	OpSys Computronics	Application Development	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y
Per Say	Performant Systems	Remote Interface		Y	Y	Y					Y		
PixieBridge	Pixieware Software	Screen/Report Development Tools	Y						Y				
		Serial Communications							Y				

Product Name	Company Name	Functionality	AP										
			Pro	D3	jBASE	mvBase	mvEnterprise	Reality/X	Revelation	UniData	UniVerse	UniVision	
PixieEditor	Pixieware Software	Data Export/Import/Editing	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PixieEngine	Pixieware Software	Migration/Conversion	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PixieExcel	Pixieware Software	Data Export/Import/Exchange		Y		Y					Y	Y	
PixieLink	Pixieware Software	GUI Front-end	Y	Y		Y		Y		Y	Y		
PixiePrint	Pixieware Software	Printing	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PixieWeb	Pixieware Software	GUI Front-end Browser	Y	Y		Y		Y		Y	Y		
PowerComm	Logitek Systems	Connectivity	Y	Y									
PRC	SJ+ SYSTEMS												
Print Wizard/Print Wizard OCX	ASSOCIATES, INC. Rasmussen Software	Source Control Printing	Y	Y		Y	Y				Y	Y	
PTS Internet Connection	WordMark International Corporation	Email	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
R.A.D.	@Better Results, Inc.	Application Development		F	Y						Y	Y	
RAD	WordMark International Corporation	Application Development											Y
S/List	The Sprezzatura Group	Reporting Tool Software Development									Y		
SDT	Biznic Ltd	Management		Y				Y	Y	Y	Y		
SRP FrameWorks	SRP Computer Solutions, Inc.	Application Development									Y		
StarSite	Binary Star Development Corporation	Web Development	Y	Y	Y	Y	Y	Y	Y		F	Y	Y

Product Name	Company Name	Functionality	AP											
			Pro	D3	jBASE	mvBase	mvEnterprise	Reality/X	Revelation	UniData	UniVerse	UniVision		
Synergy Terminal Emulator	Amplexus Corporation	Terminal Emulation		Y										
TeleModel	Orchid Systems, Inc.	Design/Workflow	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
TeleShaper	Orchid Systems, Inc.	Data Exchange	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
TeleShaper ASP	Orchid Systems, Inc.	Data Exchange	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Text	DSig	Text Editor		Y	F								Y	
	Total Computing													
TotalLink	Solutions, LLC	Credit Card Processing		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
UniFind	Sunergos Software, LLC.	Search Tool										Y	Y	
UniRepeat	Sunergos Software, LLC.											Y	Y	
UniVerse File Manager	Sunergos Software, LLC.	Database Administration											Y	
Via ODBC	@Better Results, Inc.	Cross platform integration	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	WordMark													
Visual Developer	International Corporation	Application Development											Y	
Visual e Application Developer	ScanNet Systems Corporation	GUI Front-end	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Visual e Client	ScanNet Systems Corporation	Terminal Emulation	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Visual e E-mail	ScanNet Systems Corporation	Email	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Visual e Faxing	ScanNet Systems Corporation	Desktop Office Tools	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Visual e Imaging	ScanNet Systems Corporation	Scanning	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Visual e Import/Export	ScanNet Systems Corporation	Search Tool	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Visual e Printing	ScanNet Systems Corporation	Printing Applications	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Product Name	Company Name	Functionality	AP Pro	D3	jBASE	mvBase	mvEnterprise	Reality/X	Revelation	UniData	UniVerse	UniVision
WebLynx	Stamina Software Pty Ltd	GUI Front-end		Y	Y	Y	Y	Y		Y	Y	Y
WebWizard	eagle rock information system	Browser Interface	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Winlink32 Object wIntegrate	Natec Systems Corp IBM	Cross platform/database compatibility	Y									
Wizard Pro	GA Express P/L	Application Development	Y	Y		Y	Y				Y	
WordMark	WordMark International Corporation	Desktop Office Tools									Y	