

Basic-2C[®] Connection

News and Information from the Basic-2C Community

Volume I, Issue 2

November 1990

Niakwa Committed to Development Tools

Mundelein, IL - After conducting significant technical and market research, we are pleased to announce our commitment to develop a strategic new class of products – the Niakwa Development Tools.

This is not a new subject to Niakwa. During the last twelve months we have seriously researched the market to determine what developers required of a language company, and what the next step should be for Basic-2C.

A consistent theme was “we need a Fourth Generation Language to remain competitive.” The next challenge was defining a 4GL. We found products ranging from an inquiry language to a fully integrated relational data base identifying themselves with the “4GL” buzz word.

We concluded that developers did not necessarily want a 4GL, they wanted the functionality promised by 4GLs. Developers want windows and pop-up menus with color so demonstrations have sizzle; they want data files that are independent so Basic-2C applications can interface with other environments; they want improved programmer productivity so they can quickly respond to competitive pressures — but they want all this functionality while preserving their Basic-2C application code.

We are pleased to report that Niakwa's Development Tools can deliver the functionality of a 4GL without the pain of leaving Basic-2C; without sacrificing the portability provided by Basic-2C; and without giving up the performance of Basic-2C.

Niakwa Development Tools will be a suite of products designed to provide 4GL' type capabilities to the Basic-2C application developer while preserving existing application code. Specifically

these products will:

- Provide much improved programmer productivity by allowing implementation of new features with very little programming
- Provide significant direct benefit to end users with increased performance and increased functionality, such as

NIAKWA DEVELOPMENT TOOLS

an increase in reporting capabilities and screen management capabilities

- Be easy to integrate with existing applications because the access method saves the data in a SQL standard format which is accessible by most third party products
 - Utilize sophisticated, state-of-the-art software technology
- To date four distinct product categories have been identified:
- Data Management Tools
 - Screen Management Tools
 - Report Generation Tools
 - Query Tools

Data Management Tools

The Data Management Tools will provide true ISAM capabilities to all Basic-2C applications by allowing applications to utilize native ISAM products such as Btrieve or C-ISAM. An Application Program Interface (API)

will be provided so that applications can retain full portability. Benefits of these products will be:

- Significant improvements in functionality for most applications.
- Significant performance improvements.
- Data independence. Data stored using the Niakwa API will be accessible to any other Basic-2C application that utilizes the API. In addition, the data will be directly accessible by any third party product that supports the native ISAM in use.

Application development and maintenance will be greatly simplified since the application no longer needs to be concerned with data management routines.

The Data Management Tools will be the first products released. Development of these products is well underway.

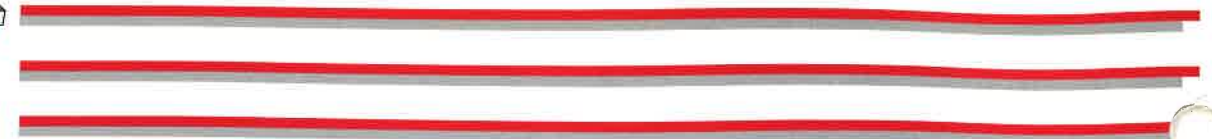
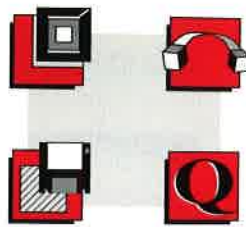
Screen Management Tools

The Niakwa Screen Management
(continued on page 6 – see Tools)

Inside...



The signing of the Wang/Niakwa Distribution Agreement. From left to right; Kin Cheung and Gene Schulz of Wang with Dick Drew of Niakwa.



Basic-2C Connection

News and Information from the Basic-2C Community

Publisher: Dick Drew
Editor: Lesslee Dort
Staff Writers:
 Kevin Brownell Kurt Skaronea
 Barbara Chiprin Dana Schwartz
 Cyndee Philyaw
Technical Advisor: Harry Cohn
Photographers: Dick Drew
Contributors:
 Jerry Dederich Dave Neubrech
 John Grubbs Jeff Rivers
 John Harris Phil Rouse
 Bryn Jenkins Tim VeArd
 Jim Lackey

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Basic-2C Connection invites Basic-2C users to submit articles for publication regarding commercial successes, technical successes, technical tips, new product releases, and/or other subjects of interest to the Basic-2C community. Niakwa reserves the right to edit or not print articles submitted. Articles contributed to the Basic-2C Connection may contain information on hardware or software products not necessarily tested or endorsed by Niakwa.

Comments, questions, and suggestions can be directed to the Editor, Basic-2C Connection, Niakwa.

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In This Issue

Volume I, Issue 2

November 1990

News

Niakwa Committed to Development Tools	1
Wang Endorses Basic-2C	3
The Niakwa-Wang Contract	3
Bullets	4
DeYoung Wins 80 System Contract	4
CRT Management Installs 120 Terminal SuperLAN	4
The Meeting Place	4
486 EISA Under UNIX at SIPA PRESS	5
Northwest Source Group Acquires SPEED I Product Line	5
Dederich - Re-Enters	6
Rivers Computer Wins Eye-Mart Contract	6

Platforms

Basic-2C and the NCR Tower Series	7
SuperDOS 5.2	7
New Basic-2C for the Altos 5000	8
Platform Update Chart	8

Announcements

DOS Extender Interface - Product Brief	10
Marketing Bulletin	10
Niakwa Expands Office Space	11
Basic-2C Training Classes	11
WOW! Welcome...	12

Tech Corner

Ask Andy	13
Basic-2C for XENIX/UNIX - An Update	13
Technical Notes	13
ASCII Files and Basic-2C	14

The Back Page

The Beautiful Princess - A True Story	15
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Profile

Jaguar Consulting	16
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News

Wang Endorses Basic-2C

Mundelein, IL - In July, Wang and Niakwa wrote another chapter in the relationship between the two companies by executing a distribution agreement that will give Wang non-exclusive worldwide distribution rights for Basic-2C on Wang platforms. Most notable is the Dynamix line of Intel UNIX based systems.

It could be said that negotiations for this agreement began five years ago when Wang made a bid to purchase Basic-2C and continued through the years with several attempts to negotiate a Basic-2C VS port. Finally, an agreement became logical when Wang introduced the new Dynamix UNIX based Intel product line.

Why did Wang sign the agreement? For one they hope to recapture the Basic-2C reseller base. Additionally, Basic-2C will make the Dynamix a solid 2200 replacement platform. The real bonus is bringing the application software written in Basic-2C to their new UNIX platform. Basic-2C applications will provide Wang's sales force with a strong tool to compete in the UNIX marketplace.

Why did Niakwa execute the agreement? Quite simply we felt that Wang will be able to introduce Basic-2C to accounts we otherwise could not have penetrated in places such as the US Government and former Eastern block nations.

Strategic alliances such as this will, we believe, increase the sales of Basic-2C resellers thereby increasing the popularity of Basic-2C. How? By getting Basic-2C applications in the hands of a field sales force that numbers in the thousands. Wang has as many "feet on the street" as the entire Basic-2C network. While in the process of rebuilding its image with VARs Wang can bring deals to Basic-2C resellers.

A final thought on the Wang/Niakwa

contract. By choosing Basic-2C for its new product lines Wang has officially endorsed Basic-2C as the world's premier

Basic-2 language. An endorsement all of us at Niakwa are very proud to have received. BC



The smiles from a successful signing of the Basic-2C Distribution Agreement by Wang. From left to right: Kin Cheung, director of Platform Engineering at Wang, and Ken Olisa, Wang's Sr. Vice President and General Manager of Europe, Africa, and the Middle East, with Dick Drew, Niakwa's General Manager.

The Niakwa - Wang Contract

Austin, TX - Niakwa's recent distribution contract with Wang Laboratories made front page news in several major computer trade publications, including The Basic-2 Report. Computer World Newspaper (front page in Germany) and Computer Business News who featured articles about how "Wang paves UNIX migration path" with Basic-2C. Several of these publications interviewed Tim VeArd, Publisher of The Basic-2 Report, and quoted him on the significance of

Wang being able to walk into the UNIX world with over 1,000 well tested applications supported by hundreds of experienced Basic-2C resellers.

The most complete coverage to-date was in the August/September issue of The Basic-2 Report which was sent to over 12,000 readers and distributed during the Basic-2 Seminars at London's TechConnect, and Tim VeArd's seminars in South America and Russia. If you did not receive a copy of that issue, you can call (512) 892-6115. BC

Bullets

- **Rochester, NY** – Rivers Computer Support reports on the growth of Bizer's Vision World's system. Currently, five stores are fed to the central store via Marksus (high speed modem) on a Wyse 3225 PC under Basic-2C XENIX, 64 user. They have outgrown the capabilities of current hardware and are researching the Altos 5000, Bull Series, and DEC machines.
- **Peterborough, UK** – GL4 systems installed a 24-terminal Bull XPS-45 at D A Green Structural Engineers to replace the existing multiplexed Wang 2200 system. The client's self-written software was converted within 36 hours and the entire system was up and running live the same day that it was delivered. The new system has an overall response time of 12 times faster than the old Wang configuration.
- **Rome, Italy** – Assioma, a Basic-2C Reseller, has recently unveiled PRISMA, a 4GL written entirely in Basic-2C. PRISMA takes full advantage of Release III enhancements and is said to speed development of Basic-2C applications by 100-150%. PRISMA will be of particular interest to IDEAS users because of its support of the IDEAS environment.

DeYoung Wins 80 System Contract

Springfield, VA - Do you ever pick up VAR Magazine and read about someone else who is installing hundreds of systems to the same customer and ask: Why isn't that me?"

Well, Jay DeYoung, of DeYoung & Associates doesn't anymore. Not after being selected to install EIGHTY SuperDOS systems for Star Gas, a major propane gas distributor in the Eastern U.S. Jay has helped Star Gas grow their

data processing installations from eight Wang 2200's to their current installed base of 80 SuperDOS systems. Star is now starting to tie the SuperDOS based systems installed in the local operations to their IBM AS400 at the home office.

"They love SuperDOS," says Jay. "It is clearly the fastest, easiest to learn and use platform available for Basic-2C today." If you have any questions, you may reach Mr. DeYoung at (703) 971-6334. BC

CRT Management Installs 120 Terminal System

Detroit, MI - Remeber the days of adding another Wang 2200 CPU for each dozen terminals on a system? Would you believe one CPU for every forty terminals? With SuperDOS, this is a reality. Just ask Allan Berger of CRT Management, a Bluebird SuperDOS VAR who uses Basic-2C for his installations.

CRT specializes in medical accounts receivable as a service bureau as well as installing in-house systems. They have a Bluebird SuperLAN system installed in their corporate location made up of two

Bluebird 486 systems and one Wyse 3225. Each CPU has forty terminals attached for a total of 120 terminals!!! The system is backed up by using a 1.2 gigabyte DAT tape back-up system.

Allan is also in the process of adding two more Bluebird 486 systems to his network, bringing the total to 200 terminals.

"SuperDOS is the key to this incredible performance," according to Allan. If you have any questions, Mr. Berger can be reached at (313) 554-2330. BC

The Meeting Place

During our travels we often times come across Basic-2C Resellers who have developed software tools or utilities that may be useful to other Basic-2C users. Just a few examples are GL4 in the U.K. who has developed a replacement tool for Idea's; ASC in the US who has a Programmers Toolkit; Software Design Gmbh in Germany who has extensive external call libraries; Computer Concepts in the US who has an excellent terminal emulation package.

Some of these tools are available for sale, such as ASC's Programmers Toolkit,

others are available for trade, such as Software Design Gmbh's external call libraries. There may even be tools that are free for the asking.

We would like to offer the *Basic-2C Connection* as a "meeting place" for Basic-2C Resellers who are interested in exchanging tools or utilities that would be of interest to other Basic-2C Resellers.

If you have a product that fits this description, please send in a brief description (50 words or less) to Niakwa, Attn: Basic-2C Meeting Place. We will publish it in the *Basic-2C Connection*. BC

486 EISA Under UNIX at SIPA PRESS

Paris, France - SIPA, one of the world's top photo agencies, lives in the fast rhythm of our modern world. Its Paris and New York offices contain hundreds of millions of references in the company's information files. Everything can be found: catastrophes and triumphs, stars with great destinations and the craziness of ordinary people.

The SIPA accounting system has been transferred onto an ALTOS 5000. A machine definitely up-to-date, it runs EISA under the SCO UNIX operating system. For the computer manufacture, ALTOS, one of the pioneers in accounting under UNIX, the ALTOS 5000 represents the first concrete step since its decision to rigorously respect the market standards.

But, is it this respect of standards that made SIPA acquire an ALTOS 5000? "To be honest, no!" says Mete Zihnioglu, responsible for Information and Communications at SIPA. His choice is based on advantages of the software application's logic and quality of contacts established for two years with the world artists, ALTOS, and the service company: Unix Data.

With SIPA growing, a solution was needed to have more than 100 terminals operating at one time. The announcement made by ALTOS last April, of a new high tech computer, came at the right moment, bringing to SIPA PRESS what they were missing. "We had a sort of moral contract with ALTOS," explained Mete Zihnioglu.

"We had the ALTOS 5000 in beta test at our company. Everybody, us and the Altos people, had the opportunity to verify for their own interests, the capacity of this machine."

The actual configuration contains 32 Mb active memory, 1.6 Gb storage memory and 120 terminals. In three months this computer will have 64 Mb active memory and 4 Gb in hard disk memory, at that time it will support 160

By buying a machine in Beta version, the development work progressed at both ends.

terminals of a new type: Wyse 60 Ambre.

The SIPA Group is composed of two units with different needs. Besides the press agency, there is a photographic laboratory, SIPA Labo, which is the 5th professional photographic laboratory in France, with 35 million francs in gross business and 1500 clients.

The principal software application used by SIPA PRESS, which realizes 65 million francs in gross business by selling photos, is of German origin. The D & D Company, directed by Konrad Dientz, developed, under Niakwa's Basic-2C, application software adapted to the needs of SIPA Agency: archive of slides, accounting work, invoicing of clients, etc.

By buying a machine in Beta version, the development work progressed at both ends... the relations between SIPA and its hardware/software vendors went beyond traditional contractual depositions. This seems to have to do with Mete Zihnioglu's personality. "With Altos, any problem may be resolved within an hour or two," Mete underlines. "Why then start a whole story with a great big vendor that will make you wait and invoice you at high prices in the same time?" BC

Northwest Source Group Acquires SPEED I Product Line

Seattle, WA - Jointly, TOM Software, Inc. and Northwest Source Group, Inc. (NSG) are pleased to announce a cooperative effort to provide a long and exciting future for the SPEED I software product line.

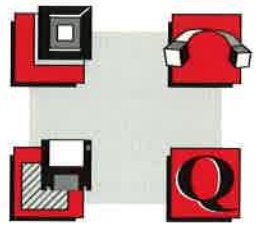
NSG - the exclusive source for TOM's SPEED I.

Effective immediately, NSG will be the exclusive source for TOM's highly successful SPEED I development tool, SPEED I business applications, and D.A.T.A. 3500. These products will be combined with NSG's new products NSGWord and FourD - the latest 4GL data base manager and development tool written in Basic-2C.



Amid all of the paperwork is Dave Cotlove, President of TOM Software (left) and John Harris, President of Northwest Source Group.

NSG plans to release conversion programs for converting SPEED I systems to FourD systems. All pricing will remain the same and all products will be available to the dealer base. BC

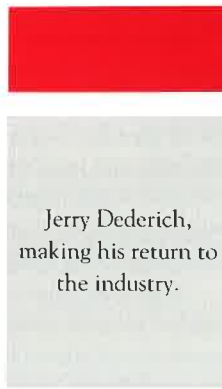


Dederich – Re-Enters

Wadsworth, IL - Gerard J. Dederich, former President and Co-Owner of Niakwa, announces his availability as an advisor/consultant.

Dederich is a Geology graduate from the University of Wisconsin, a Korean linguist and was a top manager for IBM Corporation for 10 years. He spent two years as a Vice President for the Bank of America and then started a company called GJD, Inc., which evolved into Niakwa. Under his direction, Niakwa grew to a multi-million dollar firm with over 400 resellers in 40 countries and sales in excess of 30,000 units of product. He then sold his company to Hal Tilbury, owner of Bluebird Systems, Inc.

Jerry has the ability to attract good people and make money through his excellent management skills. His computer industry experience and



Jerry Dederich, making his return to the industry.

intimate knowledge of the VAR and software business make him an ideal advisor for Basic-2C resellers.

He may be reached at Dederich and Associates, 37000 Black Velvet Lane, Wadsworth, IL 60083, Phone (708) 244-3600. BC

Rivers Computer Wins Eye-Mart Contract

Rochester, NY - Rivers Computer Support utilizing Basic-2C under the XENIX environment, has recently begun an installation at Eye-Mart, a rapidly expanding chain of optical super-stores.

The installation, currently in all six stores, requires multiple station bar code scan capabilities for point of sale and inventory control. Additionally, utilizing UUCP, the computers at the remote locations automatically dial up the main distribution center's computer and transmit inventory and accounting information.

Inventory is received and relieved at the distribution center utilizing the same bar code scan technique. Inventory received, not having its own bar code is scanned from a master bar code scan catalog where the system simultaneously produces bar codes to be attached to inventory. BC

Tools

(continued from page 1)

Tools will provide a structured Application Program Interface to screen management tasks. The Screen Management Tools will:

- Provide a sophisticated user interface with multiple screen windows
- Support field level data entry Provide menu functions
- Allow easy integration into existing applications while maintaining full application portability.

Report Generation Tools

The Niakwa Report Generation Tools will provide sophisticated report generation capabilities for applications which utilize the Niakwa Data Management Tools.

Query Tools

The Niakwa Query Tools will provide sophisticated ad hoc query capabilities suitable for end-user utilization for applications which utilize the Niakwa Data Management Tools.

Integrating 4GL technology into the existing Basic-2C language may sound like an ambitious project. It is. But not as bad as you may first imagine. Much of the 4GL technology we need already exists. We simply have to build interfaces so it works with Basic-2C. As an example we will not develop a new data management system. We will simply build an application program interface to existing technology such as B-Trieve and C-ISAM.

To build the application program interfaces and to work on other projects Niakwa has increased our R & D staff by 50%. We have added top notch systems programmers who have a minimum of five years field experience with bachelors or masters degrees in computer sciences. We have contracted with three respected outside consultants during the design phase. This will be a million dollar development effort.

In short we are serious about delivering the finest 4GL style tools possible ... as soon as possible. BC

Basic-2C and the NCR Tower Series

Mundelein, IL - Niakwa is pleased to announce Basic-2C for the NCR Tower series.

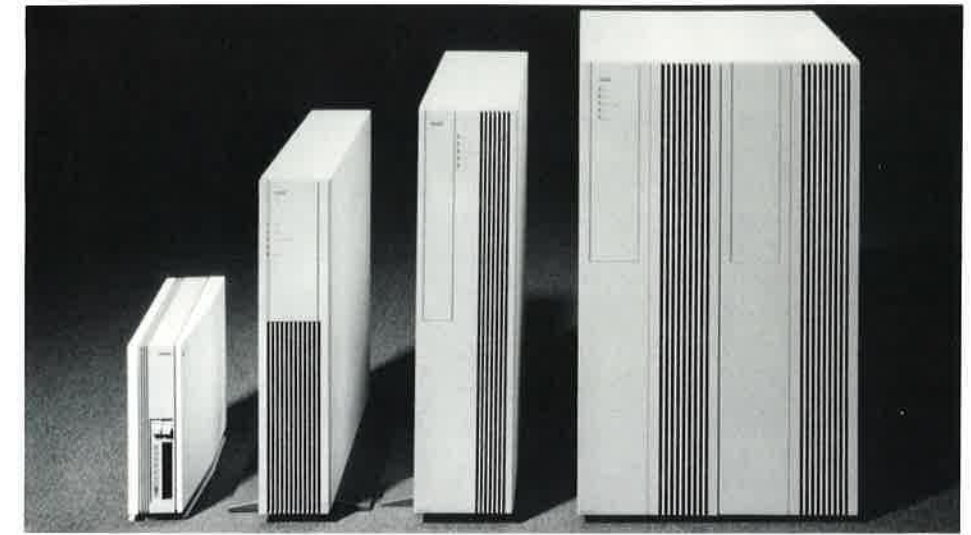
NCR, founded in 1884 by John H. Patterson, develops, manufactures, markets, installs and services business information processing systems worldwide.

The NCR Tower family combines the performance of 32-bit processing with NCR's enhanced implementation of the UNIX Systems V Operating System. The Tower family is built around the 32-bit industry standard Motorola 68030 microprocessor, and a dual bus architecture which combines Multibus I with the Processor Memory Bus.

The Open Systems Architecture (OSA) design of the NCR Tower offers many industry-standard interfaces (Ethernet, TCP/IP, Token-Ring, Async, Bisync, SNA, X.25) for improved flexibility. This support allows the Tower to support a wide range of peripherals that allow versatile system configurations. In addition, many off-the-shelf software languages, communications and business applications are available to enhance productivity in a specific customer environment.

Basic-2C for the NCR Tower family supports all Basic-2C, Release III features plus Release 3.01 enhancements such as color serial terminal support, and an enhancement to the \$OPEN statement.

Basic-2C for the NCR Tower is currently in beta test. General availability to be announced in an upcoming Niakwa Marketing Bulletin. BC



New members of the NCR TOWER family of UNIX-based, supermicrocomputers are the NCR TOWER 32/200, and entry level model; the NCR TOWER 32/450 and NCR TOWER 32/650, two midrange systems; and the NCR TOWER 32/850, the most powerful member of the NCR TOWER family.

SuperDOS 5.2

Carlsbad, CA - Bluebird Systems announces a new version of the SuperDOS operating system. Although SuperDOS 5.2 has several important new features there are four that are specifically important to Basic-2C. These features include, print spooling, enhanced communication support, disk caching, and increased availability of concurrent tasks.

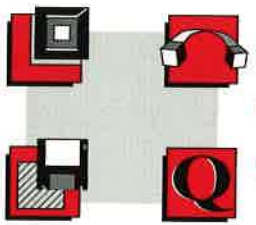
Print Spooler – All output to virtual, or spooled printer port will be redirected to a disk file for actual output at a later time. The Basic-2C application will control the printer job just by issuing a \$OPEN/xxx, where xxx is the device address of the system printer. The print job will end when a \$CLOSE/xxx is issued. The advantage of the Print Spooler is that a print job can be completed and full control will be returned to the Basic-2C program even when the specified printer is free. Also the user could decide when to print any job.

Enhanced Communication Support –

SuperDOS 5.2 will also offer significant enhancements to communications support. Flow control for incoming data will be supported. Both XON/XOFF and CTS flow control will be available. In addition, the size of the input buffer will be configurable up to 255 bytes. Both of these features can be utilized by Basic-2C applications with no program modifications.

Disk Caching – The Protected Mode version of SuperDOS 5.2 comes with an entirely new software caching mechanism. This new non-write through cache process will provide caching of disk write operations as well as disk read operations.

Concurrent Tasks – The maximum number of concurrent tasks running under SuperDOS version 5.2 has been expanded to 99 (but still will be limited to 64 users). This becomes useful when running multiple Basic-2C tasks under Bluebird's PC-Connect product. BC



New Basic-2C RTP for the Altos 5000

Mundelein, IL - Niakwa recently announced a new Basic-2C RunTime Package for the Altos 5000.

Altos, founded in 1977, designs, manufactures, and markets 32-bit networked multiuser solutions for distribution worldwide. Altos introduced the Altos Multiuser System 5000 and the Altos Power Server 5000 systems in April of 1990.

These machines were advertised to offer minicomputer performance at microcomputer prices. Both systems use an I/O bus based on the new Extended Industry-Standard Architecture (EISA), and Intel 80486 central processor, and run under Altos UNIX System V/386 Release 3.2 operating system for the 486 which is an SCO-compatible UNIX standard operating system.

The Altos 5000 is the new top end of the Altos Intel product line supporting up to 200 concurrent UNIX users and 29 GB of disk storage space. See the Sipi Press article on page five regarding a 160 terminal Altos 5000 using Basic-2C.

Basic-2C for the Altos 5000 supports all Basic-2C Release 3.01 features. Please refer to Marketing Bulletin No. 04 for a complete description of 3.01 enhancements.

Newsletters 19, 20, and 21 have further documentation of Release III.

BC

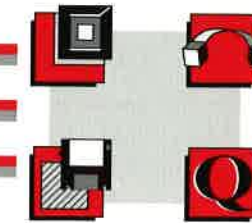
Platform Update - Multi-User

Shared Logic Systems

Computer	Operating System
ALTOS 686, 886, 1086, 2086, 3086	XENIX 3
ALTOS SERIES 2000	XENIX V
ALTOS 500, 600, 1000, 2000, 5000	SYSTEM V
BLUEBIRD SL/DH/TW SERIES	SUPERDOS
BULL XPS 100	UNIX V
BULL DPX/2 200	BOS
BULL DPX/2 300	BOS
BULL MICRAL 600/ix	BOS 386
DEC MICROVAX II	VMS
DEC VAX SERIES	VMS
IBM AT & IND. STANDARD 286	SCO XENIX V 286
IBM, PC, XT, AT	SUPERDOS
IBM PS/2 SERIES	SUPERDOS
IBM PS/2 SERIES	SCO XENIX V
INDUSTRY STANDARD 386, 486	SCO UNIX V/386, 486
INDUSTRY STANDARD 386, 486	INTERACTIVE 386/ix UNIX
NEC ASTRA-XL SERIES	ASTR-IX
WANG 280	SCO XENIX V 286
WANG 380	SCO XENIX V 386 AT
WANG APC	XENIX 3.0
WANG APC	XENIX V
WANG DX 2000 (DYNAMIX)	SCO UNIX V/386
WANG PC 300/33C SERIES	SCO UNIX V/386
WANG PC 480/25C	SCO UNIX V/386
WYSE PC 286 SERIES	SUPERDOS
WYSE PC 386 SERIES	SUPERDOS

Distributed Logic Systems (Networking)

IBM & ALL APPROVED COMPATIBLES	NOVELL ELS I NOVELL ELS II NOVELL ADVANCED NETWORKARE NOVELL E/TI NETWORKING SPERRY USERNET
(SEE SINGLE-USER MS-DOS)	



Platform Update - Single User MS-DOS

Basic-2C has been tested on the following computers

AMSTRAD PC1512	HONEYWELL PC AP	NEC APC IV
• ARCHE/RIVAL 286	HP VECTRA	SPERRY PC/IT
•+ AST PREMIUM 286	HYUNDAI SUPER 286C	TANDY 3000
AT&T 6300, 6300 PLUS	•+ IBM PC, XT, AT	TELEVIDEO TELE-PC
BLUEBIRD SL/DH/TW SERIES	• IBM PC, XT, 286	TELEVIDEO TELE-XT
COMMODORE PC-10, PC-20	•+ IBM PS/2 MODELS 30,50,60,70,80	TI BUSINESS PRO
COMPAQ DESKPRO	30/286, 50S, 70Z/386	• TOSHIBA T3100, T3200
COMPAQ PLUS	ITT XTRA XP	TULIP COMPACT
COMPAQ PORTABLE	• KAYPRO 1610	UNISYS PW2/500-12
• COMPAQ PORTABLE III	• KAYPRO 16/E	• UNISYS PW2-500
• COMPAQ 286 DESKPRO	NEC APC IV	UNISYS PW2-800
• COMPAQ 386 PORTABLE	• KAYPRO PC, PC10, PC30	•+ WANG PC, APC
• COMPAQ 386 DESKPRO	• KAYPRO 286i	•+ WANG PC280
• COMPAQ 386/S DESKPRO	• KAYPRO 386+	•+ WANG PC380, 382
• COMPAQ 386/20E DESKPRO	• KAYPRO 2000+	•+ WYSE PC, PC286, 2108, 2200
COMPAQ 386/25 DESKPRO	LEADING EDGE PC (D)	3216, 3225
• COMPAQ LAPTOP SLT/286	MAI/BASIC 4 PC	XEROX 6060PC
COMPUTERLAND PC	• MULTITECH LAN 500 (ACER)	XEROX 6065
DEC VAXMATE	•+ MULTITECH 700, 710 (ACER)	ZENITH 150 SERIES
DELL SYSTEM 220/286	•+ MULTITECH 900, 910 (ACER)	ZENITH 248 SERIES
EPSON EQUITY I, II, III	• MULTITECH 1100 (ACER)	• ZENITH SUPER SPORT/286
	NCR PC6	

• Tested and passed for 2.01. To date no previously approved compatible has failed the 2.01 compatibility testing.

+ Tested and passed for Release 3.00. To date no previously approved compatible has failed the 3.00 compatibility testing.

Basic-2C is currently operating on the following computers*

PACKARD BELL 286	NEC POWER MATE 286+	NOVELL 386 NETWORKARE
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* It has been reported to Niakwa that Basic-2C operates properly on the following computers. Be advised that Niakwa has not tested Basic-2C on these machines and therefore cannot be responsible for incompatibilities or other problems that may arise when using Basic-2C on these computers.

Niakwa asks Basic-2C users to supply information about known compatible and noncompatible PCs running with Basic-2C that are not on the Platform Update Status chart.

Announcements

DOS Extender Interface – Product Brief

With the introduction of the external call feature in Release III, Niakwa provided Basic-2C developers with the capability to integrate subroutines written in non-Basic-2C languages such as "C". One negative effect of this is that these external routines typically require a significant amount of memory. While this is not a problem on operating systems such as UNIX/XENIX where there is no effective limit to the size of a user's task, it is a problem on MS-DOS and Novell where the total memory available for all concurrent programs is 640k.

The Niakwa DOS Extender Interface products will provide a mechanism by which developers may utilize extended memory to load and execute external routines. This provides two primary benefits to the application:

1. The size of the external routines is limited only by the amount of extended memory present.
2. With the external routines loaded into extended memory there is more room for the Basic-2C application code in base memory.

The term DOS Extender refers to a class of products that can be used by software developers to develop products that can utilize more than 640k under MS-DOS by allowing the use of extended memory. DOS Extenders typically consist of a set of modules that are incorporated into the user's application. These modules perform all required memory management functions and provide for automatic switching between Real Mode and Protected Mode. There are several different types of DOS Extenders, each of which offers its own

set of advantages and disadvantages.

In order to best meet the diverse requirements of the Basic-2C community, Niakwa has implemented support for two DOS Extenders:

- DOS/16M by Rational Systems
- 386/DOS-Extender by Phar Lap

Product Description

There will be separate Niakwa DOS Extender Interface products for each

DOS Extender supported. Each product will operate under IBM MS-DOS/Novell. Each product will contain a modified version of the

Basic-2C External Subroutine Development Kit (BESDK) with associated documentation. These modified BESDK products will contain all modules required to tie your external routines to the DOS Extender. A sample external routine is included.

NOTE - the DOS Extender itself is NOT included in the Niakwa product.

This is not provided by Niakwa.

The Niakwa DOS Extender Interface will work with the current revision 3.00 IBM or Novell versions of Basic-2C.

External Routine Compatibility Issues

External routines must be compatible with Basic-2C and with the DOS Extender selected. In regards to compatibility with Basic-2C, any routines that have been previously developed for use with Basic-2C should work well with no changes. In regard to compatibility with the DOS Extenders, there are several issues to be aware of:

1. For both DOS/16M and 386/DOS-Extender, routines must be compatible with Protected Mode. This is generally not an issue with "C" or Pascal routines but will very likely be an issue with ASM routines.
2. Routines that perform frequent DOS interrupts may not perform well in Protected Mode. In particular routines which attempt to perform real time

(continued on page 11 – see DOS Extender)

The Niakwa DOS Extender Interface products can utilize more than 640k under MS-DOS

Marketing Bulletin

North American		International	
10	June 27, 1990 End-User Development Software Promotion	10	June 27, 1990 European Conference and Workshop
11	June 28, 1990 New Basic-2C Software for the Altos 5000	11	June 28, 1990 New Basic-2C Software for the Altos 5000
12	July 27, 1990 Possible UPS Strike		

Marketing Bulletins are mailed to Resellers of Basic-2C. If you are not a Reseller of Basic-2C, but would like to receive a specific Marketing Bulletin, please contact an authorized Niakwa Reseller, or Niakwa directly.

DOS Extender

(continued from page 10)

control over a serial device are not well suited for Protected Mode operation. The Niakwa DOS Extender Interface does allow specified external routines to continue to reside in Real Mode.

3. For users of 386/DOS-Extender, the requirement to utilize a true 386 compiler or assembler may introduce some upward compatibility issues for existing source code. "C" or Pascal routines which adhere to ANSI standards should, in general, not be adversely affected. However ASM routines may require significant modification.

Product Availability and Pricing

The Niakwa DOS Extender Interface for DOS/16M and 386/DOS-Extender was available for beta test on September 15, 1990. If you are interested in the product we do recommend that you obtain a beta test version. Contact your Niakwa account representative for details. Final product delivery is expected in fourth quarter.

Each DOS Extender Interface will be licensed separately via a one time license fee to the developer. The developer may then distribute his application with no additional RunTime charge for the DOS Extender Interface. For detailed pricing information, please contact your Niakwa sales representative.

NOTE - a RunTime fee is required by both Rational Systems and Phar Lap.
BC

Niakwa Expands Office Space



Mundelein, IL – Niakwa's expanding product line and aggressive development strategy has caused us to add people, equipment and materials – to the point where we have outgrown our current office space. We actually grew out of the space several months ago, and have had to operate under less than ideal conditions.

Those days will be behind us soon,

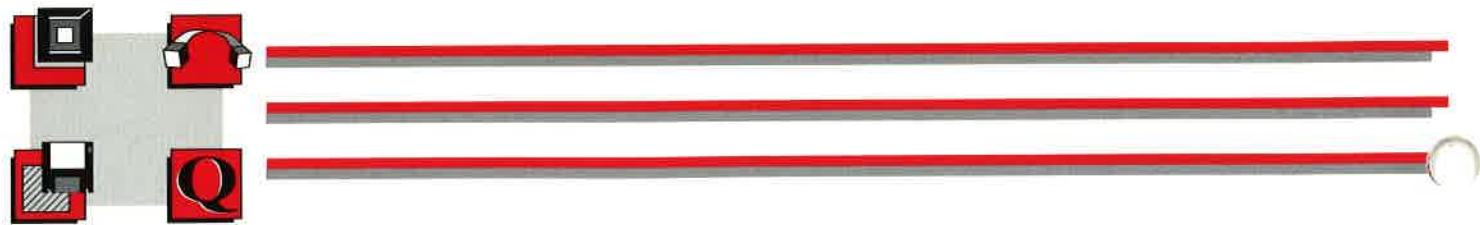
because we have reclaimed 3,500 square feet of office space that was previously sublet in the Niakwa Building. The new space will allow us to substantially improve efficiency in the software production department and allow us to expand the computer room.

Hopefully, the additional space will hold us for a while. BC

Basic-2C Training Classes

Niakwa has received several inquiries about Basic-2C training. In response to this, we have tentatively scheduled a training class at Niakwa Chicago office in January. If you are interested in having someone from your office attend this

class, please contact your Niakwa Sales Representative. This class will be taught by Tim VeArd of VCR, Inc. Tim has been traveling the world over for many years teaching and consulting on Basic-2 and Basic-2C. BC



WOW! Welcome...



Shawn Baker



Joe Bickelmans



Debbie O'Brien



Andy Warzecha

Shawn Baker joins Niakwa's R&D office in Winnipeg. He graduated with honors from the University of Manitoba in 1984 with a degree in Computer Science.

Since graduation, Shawn has worked primarily on IBM PC's. His experience ranges from dBase applications to device driver and ROM programming in C and Assembler.

An extensive UNIX-user, Shawn spent four years teaching Computer Science to university students in Canada and Australia.

A 1984 graduate from the University of Manitoba, Joseph Bickelmans recently joined Niakwa's R & D staff. Joseph completed his Masters in Computer Science while working at Manitoba Telephone.

Rejoining Niakwa's R&D staff after a lengthy sabbatical is Pat Legg. Pat is one of the original founders of Niakwa. Pat's history with Niakwa goes back to 1975 when he began working for Darrell Lynds on Niakwa's original Client Accounting

vertical market package (on a Wang 2200 of course!). Pat was the lead programmer for Basic-2C in 1984 up until he began his sabbatical in 1989. Pat rejoins Niakwa as a Senior Systems Programmer (a title that does not begin to describe what he does) and will begin work immediately on Niakwa's next generation of products. Welcome back Pat!

As one of the newest members of our team, Deborah O'Brien joined Niakwa this past July as Office Manager. She brings with her more than fifteen years of experience in Business Administration and Management.

Her career includes twelve years with Radicom, Inc., where she served as Business Manager. While there, she acquired her full accounting background and more than ten years of hands-on computer experience, while learning her way around the day-to-day running of a fast paced communications company.

A former graduate of Northern Illinois University with a degree in Business Administration, Debbie's short term plans include the upcoming marriage of

her oldest daughter, and seeing her youngest daughter through the next two years at Eastern Illinois University. Her long term future goals include her continued education towards a degree in Finance.

Andy Warzecha joined Niakwa in August 1990 as the new Product Manager.

A Chicago native and engineering graduate of the University of Wisconsin - Madison, Andy and his wife recently moved back to the Midwest. Andy's previous position was as a Project Manager for a DOS based CAE/CAD development firm located in Boulder, Colorado.

Andy's responsibilities at Niakwa will include management of the technical support department; which handles customer support, documentation, release testing, sales support, and product packaging. Andy would welcome any calls regarding suggestions or comments you may have in these areas. BC

Tech Corner

Basic-2C for XENIX/UNIX An Update

Mundelein, IL - Niakwa announces the release of an updated XENIX/UNIX product, correcting problems discovered after the release of 3.01. The update release will be available in the next four to six weeks.

Two corrections that will be addressed

in this update are:

1. The -d RunTime option fails to execute properly in the 286 version of our XENIX/UNIX products and any attempts to compile from 2200 atomized code, using the 386 compiler, result in memory fault - core dumps. As described

in the Niakwa Status Report, dated August 15, 1990, until the release of the updated RunTime and Development Package, Niakwa has temporary solutions for these problems.

2. A new NIAKREG2 security file will be added to the updated RunTime which will allow the user's system's names to be different from "UNIX".

Please note that when not otherwise specified both versions of our products (286 and 386) are affected by the problem.

For a complete description of the bugs contained by the 3.01 XENIX/UNIX Release, please refer to the NIAKWA Status Report dated August 15, 1990. Contact Niakwa's Technical Department if you need a copy or need one of the available temporary solutions. BC

Ask Andy

? Is Basic-2C supported under Novell 386 NetWare?

A. Although Niakwa has not tested Basic-2C under 386 NetWare ourselves, we have had many reports from users who are using it successfully. However, one problem has been noted. 386 NetWare will sometimes automatically reorganize data on the file server. This can cause the installed Basic-2C "fingerprint" to be lost, thus requiring that the Gold Key be mounted once per day to pass security. Niakwa is working on a solution to this. In the interim, Niakwa will offer replacement RunTimes at no charge to users who encounter this problem.

? With the Security Fingerprint installed I still get prompted for the Gold Key once a day when working on a Novell system.

A. The Security Fingerprint on a Novell system goes into the \LOGIN directory. All users need to have Read, Open and Search security rights to the \LOGIN directory. If there is not a \LOGIN directory, it is best to create the directory off of the root level prior to installing the Security Fingerprint.

When you have the construction...

```
IF(cond)THEN(op.-1) :REM (ex. of op.-1)
ELSE (op.-2) :REM (ex. of op.-2)
... then "op.-2" will NEVER occur.
```

? Does the resultant flag from IF get stepped on by any statement (even a REM)?

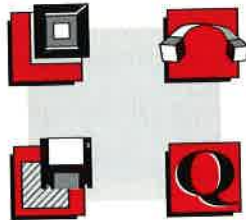
A. One of the primary design goals of Basic-2C is to allow applications that operated on the Wang 2200 to operate in Basic-2C with the minimal amount of changes possible. In the case of the 'orphan' ELSE, our implementations were chosen based on compatibility with the Wang 2200. The Wang 2200 does fail to execute an ELSE statement that does not immediately follow an IF statement even if the only intervening statement is a REM. In addition, the 'orphan' ELSE does not generate an execution time error — it is simply ignored. If we were to change this behavior, some applications that currently depend on the 'feature' would no longer operate properly. However, the DO/ENDDO can be used to produce a program structure that is more visually appealing. For example:

```
IF (cond) THEN DO :REM (ex. of cond)
(op.-1) :REM (ex. of op.-1)
ENDDO ELSE (op.-2) :REM (ex. of op.-2)
```

Technical Notes

- 03 June 15, 1990
XENIX/UNIX User Limit
- 04 June 15, 1990
Patch Installation Under Novell
- 05 June 15, 1990
Wang 2236 Configuration Under SuperDOS
- 06 June 15, 1990
XENIX/UNIX 286 RunTime
-d Problem
- 07 June 15, 1990
DPX/2 (68000) BESDK Problem

Technical Notes are mailed to Resellers of Basic-2C. If you are not a Reseller of Basic-2C, but would like to receive a specific Technical Notes, please contact an authorized Niakwa Reseller, or Niakwa directly.



ASCII Files and Basic-2C

Reading and writing text files in and out of Basic-2C is a simple task that can be accomplished using several methods. Which of the following methods you choose is completely dependent upon what you are trying to accomplish.

Basic-2C has the ability to handle I/O from two types of devices: Disk Class and Print Class.

Listing 1 is an example of creating a delimited text file via the print class device /215. This is probably the most commonly used method of text file creation. Text files created in this fashion contain a carriage return and line feed character at the end of each record. These characters represent end of record information when importing text files into other third party database, spreadsheet, or word processing products.

Listing 2 is identical to listing 1 with the exception that our file is being created via the disk class device /D40. Instead of outputting our text with a print statement, each record is output utilizing direct sector addressing via the DATA SAVE BAT statement in line 100. As you will see, each record is stored nicely in its own 256 byte sector, unlike listing 1 where all trailing spaces are omitted. Also carriage return and line feed characters are omitted from the end of each record, with one Hex (0DOA) placed at the end of the file.

Listings 3 and 4 are input routines designed to illustrate reading text files into Basic-2C. Listing 3 uses the \$GIO (C620) command to read a text file via the print class device /215. Experiment with the text files created in listing 1 and 2. This is where it becomes most apparent that PRTTEXT.DAT and DISKTEXT.DAT were created differently.

Unlike the PRINT statement, \$GIO does not insert any line handling characters. Therefore, PRTTEXT.DAT prints out nicely with its embedded HEX (ODOA) characters enforcing carriage

```
0010 REM ***** LISTING 1
*****
0020 PRINT HEX(03)
0030 $DEVICE(/215)="PRTTEXT.DAT"
0040 $GIO/215,(HEX(8700))
: REM ** REWINDS FILE OR REM OUT
30
: TO APPEND TO FILE
0050 DIM X$256,D$512
0060 A$="DELIMITED"
: B$="ASCII"
: C$="RECORD"
0070 D$=HEX(22) & A$ & HEX(222C22) & B$
&
: HEX(222C22) & C$ & HEX(22)
0080 SELECT PRINT 215
0090 FOR I=1 TO 10
0100 PRINT D$
0110 NEXT I
0120 SELECT PRINT 005
0130 $SHELL "TYPE PRTTEXT.DAT"
0140 STOP
```

```
0010 REM ***** LISTING 2
*****
0020 PRINT HEX(03)
0030 $DEVICE(/D40)="DISKTEXT.DAT"
0040 SCRATCH DISK T/D40,LS=1,END=10
: REM ** CREATE FILE **
0050 DIM X$256,D$512
0060 A$="DELIMITED"
: B$="ASCII"
: C$="RECORD"
0070 D$=HEX(22) & A$ & HEX(222C22) & B$
&
: HEX(222C22) & C$ & HEX(22)
0080 SELECT DISK/D40
0090 FOR I=1 TO 10
0100 DATA SAVE BA T (I-1) D$
0110 NEXT I
0120 SELECT PRINT 005
0130 $SHELL "TYPE DISKTEXT.DAT"
0140 STOP
```

return line feeds where appropriate. DISKTEXT.DAT as you will see suffers from the lack of line handling characters.

Listing 4 takes us back to the direct sector addressing approach, only this time by entering the files via DATA LOAD BAT. Once again experiment with DISKTEXT.DAT and PRTTEXT.DAT. By viewing the formatted sector dump of each of the files you can now see where the embedded linefeed and carriage return characters

```
0005 REM ***** LISTING 3
*****
0010 DIM A$80,B$49
0020 PRINT HEX(03)
0025 LINPUT "ENTER FILE TO BE READ IN",-B$
0030 $DEVICE(/215)=B$
0040 REM *** REWIND THE FILE ***
: $GIO/215,(HEX(8700))
0050 REM *** GET SOME BYTES ***
: $GIO/215,(HEX(C620),G$) A$
0060 REM *** GET COUNT OF BYTES READ ***
: G=VAL(STR(G$,9),2)
0070 REM *** CHECK END OF FILE ***
: IF G=0 THEN 100
0080 REM *** PRINT BYTES TO THE SCREEN ***
: $GIO(005,(HEX(A000)) A$,G
0085 KEYIN P$
0090 GOTO 50
0100 STOP
```

```
0005 REM ***** LISTING 4
*****
0010 PRINT HEX(03)
0020 DIM X$256,X1$256,A$49
0030 LINPUT "Enter name of ASCII text file",-A$
0040 $DEVICE(/D30)=A$
0050 X=0
0060 X$=""
0070 DATA LOAD BA T/D30,(X) X$
: ERROR GOTO 130
0080 PRINT HEX(03)
: PRINT AT(1,24);"Sector ";X;" of file ";A$
: PRINT
: LIST DIM * X$
0090 REM XS CONTAINS NEXT 256 BYTES OF
DATA - DO WITH IT AS YOU PLEASE
0100 X=X+1
0110 KEYIN L$
0120 GOTO 60
0130 REM **** PROCESS LAST SECTOR *****
0175 PRINT HEX(03)
: PRINT AT(1,24);"Sector ";X;" of file ";A$
: PRINT
: LIST DIM * X$
0180 REM DONE
0190 REM * UNDER VMS DISK CLASS
DEVICES CREATE 256 BYTE FIXED
LENGTH SEQUENTIAL FILES.
0200 REM * FILES CREATED BY THE VMS TEXT
EDITOR, OR BASIC2C PRINT CLASS
DEVICES ARE CONSIDERED VARIABLE
0210 REM * LENGTH SEQUENTIAL FILES AND
MAY ONLY BE READ INTO BASIC2C VIA
$GIO STATEMENTS.
```

are placed. The error statement in line 70 traps for end of file. Please note the remarks in lines 190 through 220 if you intend to access text files under VMS.

There are many methods of importing and exporting data in and out of native environments. Although this has not been an exhaustive discussion, the provided listings should get you well on your way to importing and exporting data for your own applications. BC

The Back Page

The Beautiful Princess – A True Story

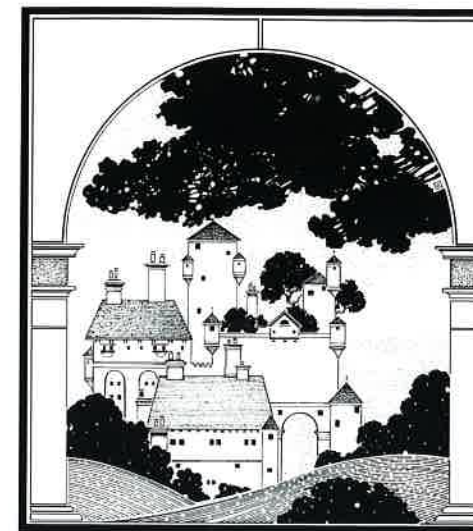
Once upon a time, in the days when Dr. An Wang ruled America, a poor woodcutter in England called Esmalglass Ltd. met a good Prince who promised him wonders untold if only the woodcutter would spend his hard-earned meager savings on a Wang PC and a wonderful magic potion called Basic-2C.

The woodcutter thought long and hard, and as the good Prince was a very trustworthy young man, the woodcutter believed him and gave him his money. For a while, everything was fine — the magic potion did everything that the Prince had promised.

But one day, tragedy struck the land — the good Prince was banished from his castle by the wicked Baron. The wicked Baron then upset all the peasants who had spent money with the good Prince and in the end all the peasants became so unhappy that they summoned a Wizard, called 'The Liquidator', who took over the castle, closed it down and made sure that the Baron lost all his ill-gotten gains.

But alas and alack — what of the poor woodcutter? He had nobody to talk to about the subtle ways in which his magic potion could be used. When he heard that there was an even better potion available, called 'Release 3', he scoured the length and breadth of the country looking for the good Prince. He eventually found him in Coventry — the Prince had returned to the land and built a new castle called 'GL4 Systems'.

The good Prince promised to sort out all of the woodcutter's problems and the poor woodcutter was delighted. The good Prince called in all his friends to help —



"In the Kingdom of Niakwa, we have an unconditional 30 day Money Back Guarantee"

his knights converted the woodcutter's software to an up-to-date version.

Best of all, the beautiful Princess from the land of Niakwa sent a new magic potion by winged messenger to enable the software to be brought to life. Alas — the Wang PC would not swallow the new magic potion — no matter how hard the good Prince tried to force it down its throat!

The woodcutter, meanwhile, was getting more and more disappointed — he loved his software very much and missed it badly. With great sadness, he decided to put his Wang PC out of its

misery, bury it in the family grave and buy a new pet, called 'IBM compatible PC' from the good Prince.

Fortunately the good Prince had an IBM magic potion in his castle and thus the woodcutter's problems were now over and he was the happiest man in the land.

The good Prince was pleased that the woodcutter was so happy but he now had a spare magic 'Wang PC Release 3' potion that he had no use for.

There were now virtually no Wang PC's being used in his Kingdom and it seemed such a shame that the magic potion was lying in a cupboard gathering dust when — if it was replaced by an IBM magic potion — then the good Prince could make another woodcutter's dreams come true!

The good Prince thought long and hard. Suddenly he had the answer! "I know, I'll speak to the beautiful Princess from across the water — she'll help me, I'm sure!"

So he did — and the beautiful Princess said ... "In the Kingdom of Niakwa, we have an unconditional 30 day Money Back Guarantee on all Magic Potions, so please feel free to trade in your Wang potion for an IBM potion at no additional cost!" And the Prince and the Princess lived happily ever after, each in their respective Kingdoms.

Moral of the Story

Do not fret, if you are ever not completely satisfied with a Niakwa product, we confidently offer an unconditional 30 day money back guarantee. BC

Profile

Jaguar Consulting

Introducing Jaguar Consulting

In 1985, Randolph D. Johnson and John W. Grubbs formed Jaguar Consulting to provide software to the entertainment industry.

At that time, Randy, now president, had been involved with the entertainment industry since 1979. John, on the other hand, had ten years of experience in marketing. The two met during a customization project they were working on together. By pooling their combined knowledge, they developed an extensive entertainment software library which brought in new clients from many different areas of the industry.

Before Randy and John could "open up shop," they had to find a name for the shop. What else could it be but Jaguar? Johnson And Grubbs Until Additional are Required. (Clever!)

Strategic Plans

Jaguar revolves around two key elements: partnerships with key industry players and the acquisition of other software companies.

Working on the first of the two key elements, many systems have been developed or enhanced for entertainment by working as partners during project development. The goal of developing the best computer solutions possible has come true for many. A sample of happy clients include Warner-Hollywood studios and their studio management, MGM/United Artists and their business affairs, Miramax Films with theatrical distribution, Galavision with cable distribution, and The Arthur Company (MCA) with episodic television accounting. Other clients involved with Jaguar as project development partners include Orion Pictures, Columbia Pictures, Island

Pictures, and Sony Video Software.

During the past five years, Jaguar has acquired a number of software companies who were actively involved in various aspects of entertainment systems. These acquisitions have only proved to enhance the wide base of expertise Jaguar can offer.

Jaguar's strategic plan promises



international expansion, and products for the remaining areas of entertainment specialization by 1995.

The Business Side

Over 27 dedicated employees cover the entire range of hardware and software technical services for more than 400 clients in the United States and Europe.

Jaguar has three locations, two in Pasadena, California, and one in New York City, New York.

Their primary hardware sales are Altos systems (series 1000, 2000, and 5000). Other hardware sales include IBM, AST, and Intel. Capitalizing on the portability of Basic-2C, Jaguar's applications are sold on machines running MS-DOS, Novell, SCO XENIX, UNIX, and Altos.

According to John, Basic-2C's

portability is a key to their success. Not only is it portable, but by being written in interpretive mode it is easier to support. John went on to say that the ability to dramatically increase the number of users by changing hardware without modifying the software is an important Basic-2C software feature.

The Software Story

Jaguar has three main software categories: TOUCHDOWN, the entertainment software system; FIRSTDOWN, the PC entertainment Software; and TRIUMPH for wholesale distribution accounting. The TOUCHDOWN package alone has 46 entertainment modules and new ones are added each year. All modules can be fully integrated to share information and tie into the General Ledger.

One package of special interest is their Rights Management Software. By incorporating the Release III features in Basic-2C, Jaguar was able to reduce 30 screens in one! This one colorful screen now extensively utilizes editable pop-up windows.

Wrapping It All Up

To maintain their high profile, Jaguar spends \$50,000 annually on advertising and promotion.

Everything taken into consideration, Jaguar stands by its philosophy, "Single source solution for software, hardware, consulting, and support." BC