

NIAKWA

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Newsletter

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BASIC-2C PRODUCT STATUS

Basic-2C is now supported in the following environments:

MULTI-USER XENIX SYSTEMS

ALTOS 886*
ALTOS 1086*
ALTOS 2086*
WANG APC

NETWORKED MS-DOS SYSTEMS

NORTH STAR DIMENSION SERIES
NOVELL NETWORKING
NOVELL E/TI NETWORKING
(Texas Instruments)
SPERRY USERNET
TELEVIDEO PERSONAL MINI

SINGLE USER MS-DOS SYSTEMS

AT&T 6300
AT&T 6300 PLUS
COMMODORE PC-10
COMMODORE PC-20
COMPAQ DESKPRO
COMPAQ PLUS
COMPAQ PORTABLE
COMPAQ 286 DESKPRO
COMPAQ 286 PORTABLE
COMPAQ 386 DESKPRO
COMPUTERLAND PC
EPSON EQUITY I

EPSON EQUITY II
EPSON EQUITY III
IBM-PC
IBM-PC-XT
IBM-PC-AT
IBM-XT MODEL 286
ITT XTRA XP
KAYPRO 1610
LEADING EDGE PC (D)
MAI/BASIC 4 PC
MULTITECH ACCEL 700
MULTITECH ACCEL 900

NCR PC6
SPERRY PC
SPERRY PC IT
TANDY 3000
TELEVIDEO TELE-PC
TELEVIDEO TELE-XT
TI BUSINESS PRO
WANG PC
WANG APC
WYSE PC
ZENITH 150 SERIES

* in Beta test

NIAKWA MOVES TO NEW HEADQUARTERS

Due to our increasing growth, Niakwa is moving its headquarters to our new 14,000 square foot building in Lincolnshire, Illinois. The new facility is roughly 6 miles northwest of Northbrook and about 30 minutes north of Chicago's O'hare Airport. We expect to take occupancy by late October.

The new mailing addresses will be as follows:

P.O. Box 599
Lincolnshire, IL 60069

or

23600 N. Milwaukee Ave.
Mundelein, IL 60060

Telephone: (312) 634-8700
Telex: 3719965 NIAK UB
FAX: (312) 634-8718

Many thanks to our valued customers, this move could not have been possible without your continued loyalty and support.

BASIC-2C RELEASE II IS NOW SHIPPING!

Niakwa is pleased to announce that after months of development and rigorous testing, Basic-2C Release II is now complete and available for immediate delivery. This new implementation of Basic-2C offers many exciting new features including full Basic-2C development and support capabilities with the new Basic-2C Interpreter. Release II also incorporates many enhancements to the Basic-2C language, including extended user partitions, direct access of native operating system commands, better debugging capabilities and more.

By this time, all Basic-2C licensees should have received an Upgrade Kit in the mail for the purpose of upgrading all Rev. 1.03 software to Release II. If you have not received your Upgrade Kit, please contact Niakwa at (312) 634-8700.

As previously announced, the upgrade of existing Basic-2C software (Rev. 1.03) will be offered for a limited time only. The special Upgrade Fees which were detailed in your Upgrade Kit will only be applicable until 12/15/86. After that time, only new orders for Release II will be accepted. If you have not returned your Upgrade Kit, you should do so as early as possible.

NIAKWA SELLS 10,000TH RUNTIME!

Niakwa Management Services of America, Inc. and CyCare Systems, Inc., the largest provider of health care information systems and services to ambulatory medical group practices, recently concluded negotiations of a major distribution contract for the purchase of 1,000 Niakwa Basic-2C Release II RunTime Packages. This transaction marks the sale of Niakwa's 10,000th RunTime Package since the introduction of Basic-2C in October, 1984. The Release II RunTime Package is to be used in conjunction with the compiled version of CyCare's C-100 application software package.

BASIC-2C RELEASE II Q & A

- Q. Is the Basic-2C Release II Interpreter really an interpreter?
- A. On the outside...yes, on the inside...no. The Release II Interpreter is actually an incremental compiler which immediately compiles code as it is being entered, and de-compiler it as it is listed. Consequently, you retain all the interactive capabilities associated with an interpreter along with the unsurpassed speed of the Basic-2C compiler.
- Q. Will I have to re-compile my existing application software to take advantage of Release II?
- A. No. All previously compiled Basic-2C software will execute under Release II without re-compilation or conversion of any kind.
- Q. What about newly developed applications (or modifications to existing applications) under Release II? Will they be compatible with existing Rev. 1.03 RunTime Packages?
- A. Yes and No. Software developed under Basic-2C Release II is intended for execution with Release II RunTime Packages. Although we designed Basic-2C Release II with both upward and downward compatibility in mind, some inconsistencies may be discovered when developing new code (or modifying existing code) with Release II, and then later running it with Rev. 1.03 RunTime Packages. Release II's new commands and enhancements are not supported by the old version, nor are the Rev. 1.03 bug fixes. Therefore, to minimize any incompatibilities which may arise in the future, Niakwa strongly recommends that all Rev. 1.03 software is upgraded to Release II.
- Q. How can I restrict my users from listing (and potentially corrupting) their application software?
- A. Release II now offers two ways to protect your application software from being viewed or modified. 1) The file that enables the Basic-2C Interpreter is supplied to authorized Basic-2C licensees only, thus allowing you to enable and disable the Interpreter at your discretion. 2) Like Rev. 1.03, Release II incorporates the SCRAMBLED option of the Basic-2C compiler so you may Scramble Protect your application software.
- Q. What is \$DEMO?
- A. \$DEMO is a new system variable which allows a developer to create automated demonstrations and tutorials of live Basic-2C application software. All fields normally keyed in by the operator may automatically be filled in by a prepared ASCII script file. This script file may also be set up to provide informational text to the user, who need only press the space bar of their keyboard to continue the demonstration or tutorial. See the free \$DEMO sample offer in this newsletter for more details.

BASIC-2C RELEASE II Q & A (cont.)

Q. When compiled under the Rev. 1.03 compiler, some of my applications increased in size slightly, and consequently did not fit into the 56k partition. Will Release II solve this problem?

A. Yes! Release II supports an extended user partition of up to 120k. When the separate program segment option is chosen, the Release II RunTime Program will divide the user partition into two segments, provided there is sufficient memory available. One segment will be generated containing 64k, to be used only for the storage of program text. A separate 56k segment will be generated, to be used strictly for variable storage. Thus the user partition is effectively 120k!

Q. Previous releases of Basic-2C did not support applications such as the Wang Sort-4 utilities which generated code. How does Release II accommodate for program generated code?

A. The new \$SOURCE and \$OBJECT statements in Release II allow dynamic generation of executable p-code. Applications which require the ability to generate or modify program code can now successfully operate under Basic-2C. Note that some modification of such programs is required to incorporate use of the \$SOURCE and \$OBJECT statements.

Q. I have 6 PCs in a Novell Network. Do I need to purchase 6 RunTime Packages?

A. No. The Release II RunTime Package for Novell Networks incorporates a "Network Wide Security Check" which activates as many Basic-2C users as is supported by that version of the RunTime Package. Versions of the RunTime Package for Novell Networks are available to support the following number of users: 1 to 4, 1 to 8, 1 to 16, 1 to 32, 1 to 64, and 64+. This new multi-user RunTime significantly reduces the cost per user, and makes the security check in a network much more convenient.

Q. Why would I use \$SHELL in a Basic-2C program?

A. \$SHELL allows execution of native operating system utilities and commands under the control of your Basic-2C application. This feature can be used in a variety of ways to enhance the power of your application. For example: executing a tape backup utility before proceeding with an update, or a spreadsheet or word processing application after spooling data to it from your Basic-2C application. You can even use \$SHELL to create a comprehensive menu system where menu items can refer to both Basic-2C programs and native operating system programs.

UPGRADING END-USERS TO RELEASE II

Upgrade orders for Release II are coming in at a brisk pace, as the benefits of upgrading end-user sites to Release II become more and more apparent. Licensees have told us they intend to upgrade for the following reasons:

Installations Will Be Easier To Support

Release II offers easier and faster end-user support because substantially more problems can be solved over the phone, instead of requiring on-site visits or programs being sent back to a 2200 for debugging.

New features, such as extended user partitions and direct access of native operating system commands, allow for more advanced software development.

\$DEMO makes it easy to create automated demonstrations and tutorials to aid in the sales and training cycles.

Release II corrects all reported bugs that existed in 1.03.

Enhanced Development Environment

The development environment of Basic-2C Release II is far superior to the 2200, and, because of its compiled nature, much faster. In fact, many Release II beta test sites have moved their application development from their Wang 2200 to PCs running the Niakwa Interpreter, and for good reason.

Release II incorporates better debugging features, such as: break point debugging, conditional continue with HALT/STEP, and list mode that displays contents of ASCII or HEX variables.

Provided the 2200 subset is used, applications developed under Release II may be transported back and forth to the 2200.

Software developers need only support one version of their software. This becomes increasingly more important as new features of Release II are implemented into newly developed applications.

When programming on their own PC's, software developers have their very own development environment. They are not affected by system degradation caused by other system users, and they can do development anywhere they have access to a PC!

Your End-users Will Benefit Greatly

Though the benefits of upgrading to Release II may be obvious to the developer, some Basic-2C Distributors have wondered how they should sell the upgrade to their end-users. From an end-user viewpoint, some of the major benefits are:

The quality of their support will increase because more problems can be resolved over the phone. By increasing the quality of support, fewer maintenance calls should be required, reducing the amount of maintenance charges.

Since the end-user no longer needs a 2200 for program maintenance, the money saved by disposing of the 2200 (and its maintenance costs) could pay for a new computer in a few short months!

END-USER UPGRADE LETTERS

The following letters are intended to help you market the upgrade to your end-users. The first letter may be used to upgrade a client who is familiar with the Wang 2200 and Basic-2C, while the second may be used for a less technical client. Please feel free to tailor the letters to suit your individual clients.

Letter #1

Dear XYZ customer;

XYZ COMPUTERS, in its effort to consistently offer excellent software products and services, is pleased to offer Niakwa Basic-2C Release II, an enhanced version of your existing Niakwa Basic-2C RunTime Package.

This new release offers:

- Better and faster solutions to your software problems, with on-the-spot debugging and maintenance of your software, on the PC itself!
- The ability for XYZ to design automated tutorials of your software which will aid in the training of new users.
- More convenient use of Novell Networking through the use of a multi-user RunTime!
- Many language enhancements which will help us continue our development of more advanced application software for you, our customer.
- Much, much more.

The price of this new RunTime Package will be \$_____, however for a limited time only, XYZ Computers will allow you to upgrade your existing software to Release II for only \$_____.

XYZ COMPUTERS strongly recommends that you take advantage of this special offer. Simply fill out the lower portion of this page and return it to XYZ COMPUTERS along with payment of \$_____. Your upgrade will be shipped to you shortly. Once received, you must return to XYZ COMPUTERS the existing Basic-2C RunTime Package (Gold and Silver Keys) which the upgrade is replacing.

Company Name: _____

Your Name: _____ Title: _____

Signature: _____ Date: _____

Letter #2

Dear XYZ customer;

XYZ COMPUTERS, in its effort to consistently offer excellent software products and services, is pleased to offer a method of better supporting your application software through the upgrade of your current Gold Key diskette.

This upgrade will allow for:

Better and faster solutions to your software problems. Support will be easier because more problems can be resolved over the phone.

Less system downtime because fewer situations will require an on-site call, or the return of the software to our site for debugging.

Since the number of maintenance calls should be drastically reduced, so should the number of maintenance charges.

Now you can receive better software support, and stay current with us as we develop many new enhancements to your software under this new release.

The cost of the new RunTime will be \$_____, however, for a limited time only, XYZ Computers will allow you to upgrade your existing software for only \$_____.

XYZ COMPUTERS strongly recommends that you take advantage of this special offer. Simply fill out the lower portion of this page and return it to XYZ COMPUTERS along with payment of \$_____. Your upgrade will be shipped to you shortly. Once received, you must return to XYZ COMPUTERS the existing Gold Key diskette which the upgrade is replacing.

Company Name: _____

Your Name: _____ Title: _____

Signature: _____ Date: _____

WANG KFAM AND IDEAS UTILITIES

The following pages were originally printed in Newsletter #1 and are reprinted for your reference.

The Wang KFAM Utilities have been successfully ported by several vendors. Version 7.0, set up for multiplexed operation, seems to be the easiest to get working since it does not require the use of a global partition. Global partitions are not supported under Basic-2C. Note, you will need the set up for multiplexed operation for networking applications. The only modifications required are in the KFAMOPEN routine. This routine contains one \$GIO statement which checks for the existence of a disk. Please note, line numbers and exact variables may be different depending upon exactly which version of KFAM you are using and whether or not you have made any modifications.

Original code:

```
2174 IF POS("3BD"=T4$)*POS("123567"=STR(T4$,2))*POS("012345"=STR(T4$,3))=0 THEN
      2911
      : SELECT #Q<T4$>
      : $GIO#Q, (70A04000870B,V7$)
      : ERROR GOTO 2911
2184 IF STR(V7$,11,1)<>HEX(D0) AND STR(T4$,3)>"0"THEN 2911
      : IF Q=Q2 THEN 2194
      : Q=Q2
      : GOTO 2174

2194 LIMITS T#T1,T$,V,T3,T,Q
      : $CLOSE #T1
      :
      :
```

Modified code:

```
2174 IF POS("3BD"=T4$)*POS("123567"=STR(T4$,2))*POS("012345"=STR(T4$,3))=0 THEN
      2911
      : SELECT #Q<T4$>
      : REM $GIO#Q, (70A04000870B,V7$)
      : ERROR GOTO 2911
2184 REM IF STR(V7$,11,1)<>HEX(D0) AND STR(T4$,3)>"0"THEN 2911
      : IF Q=Q2 THEN 2194
      : Q=Q2
      : GOTO 2174

2194 LIMITS T#T1,T$,V,T3,T,Q
      : ERROR Q=0
2195 $CLOSE #T1
      :
      :
```


The Wang IDEAS utility has also been successfully modified by several vendors to run under Niakwa Basic-2C. The primary modification required is to replace a \$GIO statement which accesses the keyboard:

The original IDEAS code gets a key in G\$(1) and key type in G\$(3). Please note, we are not sure of the exact line numbers or variables. However, the replacement code will perform all functions of the \$GIO which is replaced.

```
DIM G0$36,G$(10)1
G0$=HEX(71054005400E01080220D7101C670030317400302116117201424030011411708030
12020)
$GIO(G0$,G$())G$(<4,1>          : REM THIS IS THE STATEMENT TO REPLACE
```

Replacement code for the above \$GIO:

```
$GIO/005(4005400E)          : REM PRINT HEX(050E) TO SCREEN
G$(3)=HEX(02)                : REM DEFAULT KEY TYPE IS 02 (SPECIAL
FN)
KEYIN G$(1),,250             : REM WAIT FOR A KEY, PUT IN G$(1)
G$(3)=HEX(00)                : REM KEY TYPE FOR NORMAL KEYS IS 00
IF G$(1)=HEX(08)THEN G$(3)=HEX(03) : REM KEY TYPE FOR BACKSPACE IS 03
IF G$(1)=HEX(0D)THEN G$(3)=HEX(01) : REM KEY TYPE FOR RETURN KEY IS 01
250 G$(6)=G$(1)              : REM SIDE EFFECT OF $GIO PUTS KEY IN
G$(6)
```

ALSO

FREE \$DEMO SAMPLE OFFER

The new \$DEMO feature of Release II has proven to be a very useful tool for software developers who wish to create automated demonstrations of their live application software, or to incorporate automated tutorials into their applications.

To assist in the marketing of Niakwa's own vertical market software for CPA firms, a demonstration version of the Niakwa Client Accounting System was developed using \$DEMO. It was designed to demonstrate the software to prospective clients in situations where a personal demonstration was not possible, and has led to many sales of the application. To acquaint you with the many possible uses of \$DEMO, free copies of the demonstration software are available for both the Wang and IBM PC.

To get your free copy, simply fill out the lower portion of this page, and include \$5.00 (US) for shipping and handling charges. Or if you wish, we will ship the software C.O.D.

Account Number _____ Date _____

Company Name _____

Your Name _____

Type of computer used: Wang ___ IBM ___

Method of Payment: Check enclosed ___

C.O.D. ___
VISA/MC ___ Acct #: _____

Exp. Date: _____

NEW COMPUTER EVALUATIONS

Those That Passed

Compaq 386 Deskpro

The Compaq 386 Deskpro has been tested and approved for use with the IBM PC and Approved Compatibles version of Basic-2C.

The Compaq 386 utilizes a 32 bit Intel 80386 microprocessor running at 16mhz. System memory is expandable to 14MB of RAM, with 1MB standard with the system. The 386 supports both 360kb and 1.2MB floppy disk formats, and up to 130MB of fixed disk storage is available.

Our testing proved that the Compaq 386 is the fastest computer tested under Basic-2C to date. The Compaq 386 runs about twice as fast as the Wang APC under MS-DOS, making it about 8 to 10 times faster than the 2200 itself!

IBM PC-XT Model 286

The IBM PC-XT Model 286 has been tested and approved for use with the IBM PC and Approved Compatibles version of Basic-2C.

The new Model 286 utilizes an Intel 80286 microprocessor running at 6mhz. The Model 286 comes standard with 640k RAM, expandable to 12.6MB, 20MB of fixed disk storage and a 1.2 MB floppy disk drive.

Multitech Accel 900

The Multitech Accel 900 PC has been tested and approved for use with the IBM PC and Approved Compatibles version of Basic-2C.

Compatible with the IBM PC/AT, the Accel 900 uses an Intel 80286 microprocessor running at 10mhz (switchable to 6mhz). This makes it about 30% faster than the IBM PC/AT, and slightly faster than the Wang APC under MS-DOS.

System memory is expandable to 1MB of RAM on-board, 16MB total for the system. The Accel 900 supports both 360k and 1.2MB format diskettes, and 30MB and 40MB hard disks are available.

Those That Didn't

Alloy PC-PLUS Using NTN

NTNX by Alloy Products, Inc. is a product advertised as being Novell compatible and designed to allow asynch terminals to be connected to an IBM PC or compatible. Alloy PC-PLUS provides multi-user capabilities which are intended to emulate Novell Netware using the Alloy PC-SLAVE/16N board. We tested a LINK 125 terminal in our evaluation.

Our findings show when the NTN software is loaded on the host IBM PC, the RunTime program hangs when executed. Apparently NTN modifies the interrupt structure of MS-DOS. In addition, when attempting to execute the RunTime program from the LINK slave terminal, the RunTime program does not recognize it as an IBM PC or compatible and therefore terminates immediately. We were unable to execute the standard RunTime program in this environment, consequently we were unable to evaluate the multi-user capabilities or Novell compatibility.

Conclusion: The current release (Rev. 2.00.04) of Basic-2C for Novell Networks can not be used with the Alloy PC-SLAVE/16N board or NTN software.