NOVADYNE℠

Technical Operations
ON—LINE

Published for System Software Users

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LOGON:

Who is "Betty?"

"Betty" is the voice you will hear on our new Voice Messaging System (VMX D.I.A.L. Release 5). This new call processing system provides Novadyne with another tool to serve you better. When you call someone at Novadyne, "Betty" will prompt you to leave a message or to dial "0" for personal assistance. You are then connected to someone on our Administrative staff (Nancy, Jeana, Debbi, or Loretta), who will be happy to help you.

I know some of you dislike these answering machines that require you to leave a message, but our new system is truly state-of-the art and should overcome many objections inherent in typical voice mail systems. In addition to giving you the option to speak with a "real" person if necessary, our new system automatically pages the party you are trying to reach when a message has been left in their mailbox. Just remember to wait for the "Beep".

- Editor

NOTICE

The First Quarter, 1990 (Volume 3, Number 1) issue of ON- LINE contained an in depth article addressing the consequences of purchasing used equipment from unauthorized Novadyne resellers.

In this regard, we have discovered that a substantial volume of used hardware headed for the scrap heap has been purchased by a used equipment broker not affiliated with Novadyne or McDonnell Douglas. With the recent relocation of McDonnell Douglas' U.S. manufacturing facility, there was considerable equipment deemed unrepairable which exhibited hard or intermittent faults. Some of this equipment may resemble our current products, but could actually be a prototype and not supportable. Almost all of it was very old and, therefore, could not be brought up to current revision levels.

All of this material was offered to Novadyne, but was turned down because of the reasons mentioned above. It was our understanding that it would be sold as scrap. Unfortunately, the scrap dealer resold this material to a well known used equipment broker.

We regret this unfortunate turn of events and any inconveniences it may cause our customers.

Again, we stress that to ensure that all your system upgrades go smoothly, please consult your authorized Novadyne reseller before purchasing used equipment or upgrades.

- Bill Kersten
  V.P. Technical Operations

Highlights inside ON-LINE

Focus on 7.0

SEEMS TO US THAT TURN ABOUT IS FAIR PLAY!!!!

In the last issue of ON-LINE, you were able to place a face with the name, to those of us who so diligently support you.

Well, that got us thinking; and believe me, its been a subject of some pretty interesting discussions.

WHAT DO YOU LOOK LIKE??

Although some of us have had the pleasure of meeting our customers and dealers, many of us have not.

So how about it folks? Send us YOUR pictures. How about one with you and your system? Tell us what you do. Tell us what your company does? Let us know if you're involved with a user's group. We want to know all that stuff.

We promise to display you in a place of honor so we can proudly say "Look at our customers, aren't they the best looking bunch of folks you've ever seen?"

• Grace Varela

Editors Note:

Although our pictures were presented last issue some of our valued employees were not present. Not pictured were: Steve Champeau, Sam Craghead, Brad DeWitt, Will Edwards, Jan Heppert, Helen James, Niki Jhaveri, Steve Moore, Gary Moote, Katheryn Rebe, and Jim Smith.

MORE ON 3600 FOOT TAPES

Since the previous article on use of 3600-foot (1-mil) tapes (see ON-LINE Vol.3, No. 3, page 1), additional information has come to our attention that clarifies some previously unexplained phenomena. This information comes from a Hewlett-Packard HP7979A operators manual.

In addition to the problems of tape stretching and deformation, which were discussed in the first article, it seems that 1-mil and 1.5-mil tapes cause the read/write head of the tape drive to wear differently. 1-mil tape causes the critical read/write area of the tape head to wear at an accelerated rate.

It also creates a different wear pattern on the head which a 1.5-mil tape is not able to conform to after a period of time. This results in all sorts of problems such as read/write errors and parity errors. THIS EFFECT OCCURS IN ALL INDUSTRY STANDARD HALF-INCH TAPE DRIVES.

HP's solution to this problem is to: (1) dedicate a tape drive for 1-mil tape use only, or (2) use no more that one 1- mil tape for every ten 1.5-mil tapes used. Neither of these options seem very practical, and when coupled with the problem of tape stretching our recommendation *against* using 1-mil or 3600-foot tapes is underscored.

• Steve Gill

WHAT IS A CONSUMABLE?

There are a number of parts within your printer that are not supported under your maintenance agreement. These parts are categorized as consumables. A consumable is a part with a fixed life span such as a printer ribbon. The laser cartridges used on low end laser printers; the drum, toner, developer, and fuser on high-end lasers; the print band on band printers are all considered consumable items.

Under normal circumstances, the customer purchases, stocks and replaces consumable items. They usually can be replaced without removing any covers from the printer. It is important to note, however, that some of the consumables within high speed lasers, such as the drum, should be replaced by your Field Engineer.

The User Manual for your printer is a great reference for identifying which parts of your printer are considered consumables. You can also ask your Field Engineer what parts are consumables and the appropriate stocking level you should maintain.

• Brian McKinstry

STAR POWER

WHAT IS THE PURPOSE OF THE LOGON WORKSPACE TABLE AND HOW IS IT USED ON 7.0?

The logon workspace table (LWST) is an often misunderstood part of the system. Frequently the comment we hear is that a user is adding up the disc space used by the system and they swear that after their calculations they are short a significant number of frames. Most often they have forgotten to include the frames used by the LWST.

The purpose of the LWST is to allow the system to maintain permanent additional logon workspace frames after a coldstart, and to allow almost instantaneous logon for processes using a logon workspace entry that has already had the additional HS, IS and OS frame links initialized.

The entries in the LWST are used to satisfy requirements for additional logon workspace by each process. If a process requires additional workspace, the LWST will be searched for the smallest entry that will meet the workspace size requirement.

Attribute 8 of the account's entry in the SYSTEM file contains (in parentheses) the additional size requested for each of the HS, IS and OS workspaces. As such, the size indicated in the SYSTEM file is actually only 1/3 the size of the block needed. If no exact fit can be found, and a larger block must be used, the process will be given the entire block size to be used as additional workspace.

As has been noted in a previous column, the permanent entries in the LWST are set up by the SYSTEM-SETUP proc at AF restore, COLDSTART and ABS load times.

You may display the LWST by using the WORKSPACE verb. On Operating Systems 6.0, 5.3, and 2.3, the display will look something like this:

```
:WORKSPACE

FROM      TO    SIZE/3  STATUS LINKED   PORT
 6748  -   7128    127              Y      1 IN USE
 7129  -   7509    127              Y     66 IN USE
 7510  -   7890    127              Y      0 IN USE
  -        -       -               -      -
 9796  -  10545    250    T         Y      4 IN USE
10546  -  11313    256    T         Y      5 IN USE
```

Those entries with a status of "T" (temporary) will be returned to the Overflow Table when the active process logs off. The remaining entries are your permanent entries. These are the entries you should be taking into account when calculating disc usage. As an example, consider that you have 50 entries with a SIZE/3 of 127 or 381 frames each. Simple multiplication shows that this constitutes 19,050 frames used for these permanent entries.

On operating system 7.0 the display is a bit different:

```
WORKSPACE:

FROM      TO       SIZE    LINKED    PROC

983741  -  983996    256       Y       13 IN USE
983997  -  984252    256       Y       13 IN USE
984253  -  984508    256       Y       13 IN USE
984720  -  984974    255       Y       25 IN USE
948975  -  985229    255       Y       25 IN USE
```

As you can see, instead of a SIZE/3 column, there is a SIZE column that displays the number of frames allocated for each block, hence the display of 3 lines for each port. The PROC column is of course in reference to the process or port number. There are some additional display options availiable on the 7.0 system that you will find in the TCL Reference Manual for 7.0.

You can see that the LWST can constitute a good portion of disc space and you should therefore give careful attention to how you set up the additional workspace requirements for your accounts.

- Mike Bingman

PGM

NEW STATEMENTS AND FUNCTIONS WITH DATA/BASIC ON 7.0

With the release of the 7.0 Operating System several new statements and functions have been added to the DATA/BASIC programming language. This article reveals what new "things" now exist and briefly describes their use. Below is a listing of the new statements and functions.

```
INPUT TRAP          NETWORK FACILITY   GENERAL ASYNC DRIVER
INPUT@                ACCEPT             ATTACH
INPUTERROR            CONNECT            DETACH
INPUTNULL             DISCONNECT          GET
COLLECTDATA           RECEIVE            GETCOUNT
RTNDATA               RECWAIT            PUT
REMOVE                SEND               PUTCONTROL
SYSTEM FUNCTIONS                         CRC
DB
ACCEPT
NULL
```

Let us begin with the 'INPUT@' statement which, as you may guess, is much like the 'INPUT' statement but has much more versatility.

The 'INPUT@' statement not only specifies cursor positioning but also displays an existing variable and provides a means of format masking and pattern matching of the variable. Here is the syntax of the statement.

INPUT @(c,r) {:} variable{length} {:} {format-mask} {WITH delim- mask} {FOR time [THEN statement(s) ELSE statement(s)]}

c,r	Specifies the column and row positions for the cursor.
:	Has no significance but is allowed to be compatible with the PRINT @(c,r): statement.
variable	Variable or array to which the value entered is assigned.
length	Maximum number of characters to be entered, after which an automatic <RETURN> is executed.
:	Inhibits the output of a carriage return/line feed.
_	Used with length specification to bell when specified number of characters have been entered until a return is entered.

format-mask	Format display of variable, verify operator input or specific pattern matching mask.
delim-mask	Define input delimiter. <RETURN> must be included in mask if you still want it to be a delimiter.
time	Specifies how long the system waits for input.

To illustrate the use of this we will setup an example input statement to solicit input at column 5 row 9 to variable VAR to display right justified in a field of seven characters. Input will terminate on ESC delimiter waiting one minute and if not received, branch to label 100.

```
EQU DLM TO CHAR(27)
INPUT @(5,9):VAR:"R#7" WITH DLM FOR 600 ELSE GOTO 100.
```

Two other statements can be used in conjunction with the 'INPUT@' statement. These are 'INPUTERR' and 'INPUTNULL'.

INPUTERR prints a prompt message on the terminal status line. As an example we could display on the status line special instructions for our input.

Example: Print string contained in MSG1 on status line then prompt for date.

```
MSG1="Date must be in format dd/mm/yy"
INPUTERR MSG1
INPUT @(5,5):DATE
```

INPUTNULL defines the character that, when input in response to an INPUT@ statement, causes a null value to be assigned the INPUT@ variable.

Example: Null character is defined as an <ESC> key. At the INPUT@ statement, entering an <ESC> will null the variable ANS value.

```
INPUTNULL CHAR(27)
.
INPUT @(5,5):ANS
```

We have only discussed the 'INPUT@' statement and as you read at the beginning of this article, there are quite a few statements and functions that are new to 7.0 that we can discuss in future articles. If there are some specific statements you would like explained, please write and let us know.

- Gary Moote

ROS

Current OS Releases And Patches

The following table contains the most current Operating System (OS) revisions and patch levels for each supported system. Novadyne Computer Systems, Inc. has assumed responsibility of installing all patch tapes for Dealer/VAR and branch customers.

If you do not have the current patch tape installed for your particular Operating System, please contact your Field Engineer (FE) through Central Dispatch to schedule a time for installation.

Series	Release	Patches (PP = Paper Patches)
4700	4.3RevD	PP1-2
6000	2.3RevD	RevC Tape (Includes PP1 175)
	1.1RevD	RevB Tape
6000 Enhanced		
	2.4RevA	RevA Tape (Includes PP1-175)
9000	5.3RevD	RevD Tape (Includes PP1-157)
	1.3RevC	RevA Tape
18	6.0RevF	RevC Tape (Includes PP1-165)
	7.0RevP	Block Tape 1

Please note: Patch Tape Rev C for Series 18 6.0 is now available.

- Mike Bingman

PIB STATUS, WHERE, SELECTIVE RESTORE, AND GFE RECORDING ON 7.0

This issues ROS article highlights four areas of our recently production released 7.0 Operating System.

7.0 PIB STATUS

Common PIB STATUS values and their associated significance for both Series 6000 and Series 18 7.0 are listed here:

Sleep	7FFF
Frame fault	DFFF
Output roadblocked	F7FF
No roadblocks	FFFF
Wait for Locks	FFEF
Hibernate	BFFF
Stopped	FF7F
I/O wait	EFFF

With the exception of the status of I/O WAIT, the 3rd Quarter, 1990 Star Power column discussed these PIB STATUS values on Operating System releases up through Series 18.

A condition of I/O wait means that an I/O (input/output) operation has been started on a peripheral device, such as a tape drive, and has not yet been completed. A process with an I/O wait status is therefore effectively roadblocked until the I/O completes, at which time activation of the process can resume.

****

'WHERE' DISPLAY AND NEW OPTIONS

WHERE now displays those processes that are SLEEPING with an 'S' to the left of the PORT column, for example:

```
  PORT PCBFID  PS    RTN STACK...
S  44  0F0A2A  BFFF  1912.127
```

WHERE also displays those processes that have been ORPHANED by displaying an 'O' to the left of the PORT column. An orphaned process is one that is associated with a despooler queue but currently has no device assignment.

The WHERE verb on 7.0 offers a new and as yet undocumented feature where only those processes matching a specified condition are displayed.

This feature came about because there are times when it is useful to know what and how many processes are in some equivalent state. For instance you might want to display only those ports that are disc roadblocked. Since such a process would have a PIB STATUS of DFFF, using this information as a mask for WHERE, the following will display only those proccesses (if any) that are disc roadblocked:

```
WHERE (M.DFFF)
```

'M' stands for Mask; the '.' preceding the PIB STATUS indicates hex format.

There is a new option that can be used with WHERE to only display any processes that are currently in debugger mode: at TCL, enter WHERE (D). Along with the usual WHERE information, a 'D' will be displayed to the left of the PORT column.

Another new option you can use with WHERE is the 'W' option: to only display those ports that are hibernating and sleeping. For the ports that are sleeping, their scheduled wake-up time is displayed, as for example:

```
PORT PCBFID  PS    SCHEDULED WAKE-UP TIME (NOW 08:23:55)
20   286F1D  BFFF  Hibernating
251  002459  7FFF  08:23:58
9999 000840  7FFF  08:24:03
```

****

SELECTIVE RESTORE OF PRE-7.0 FILES

The following explains how to restore data from a pre-7.0 file into a 7.0 file, using SYSPROG as the account, TEST as the file to be restored, and BP as the file on tape.

```
SEL-RESTORE TEST *

ACCOUNT?          SYSPROG
FILE?             BP,DL/ID
```

The system will restore the data of BP into the TEST file.

> **NOTE:** If the ',DL/ID' is not included as part of the file name, the restore process will not find the default data section of the BP file.

Prior to 7.0 you would have simply entered 'BP' at the FILE? prompt in order to restore the data from the BP file. The default data section of a file was always called DL/ID but it did not have to be specified; if the DICT was not specified, the data level was assumed.

However, 7.0 no longer refers to the default data section as the DL/ID. When a two level file (a file containing both a dictionary and data level) is created, the default data section is also created: this is the level that used to be called the DL/ID but now has the same name as the file name.

Thus, entering 'BP,DL/ID' is simply specifying the data section that was once assumed by the Operating System.

If you want to restore the data of BP into another data section of TEST, for example called OLD.BP, you would enter:

```
SEL-RESTORE TEST,OLD.BP *

ACCOUNT?    SYSPROG
FILE?       BP,DL/ID
```

In the first example, by not specifying a data section of the file being restored, the default data section is assumed. Therefore:

```
SEL-RESTORE TEST,TEST *

is equivalent to

SEL-RESTORE TEST
```

* **********

A GFE is now logged in one of two files, depending on how the system detects the GFE.

Should a GFE be found during interactive processing, for example during data input or report generation, the GFE will

be logged in the System-Log file. The resultant record in System-Log will contain the information needed by you or your analyst to fix the GFE; therefore, there is no longer the need to reaccess the file doing a COUNT, LIST, etc. To display the GFE information, at TCL enter:

```
LIST SYSTEM-LOG GFE.ERRORS
```

Unlike the stat report, this display will not display the file in which the GFE is found but will display the FILE BASE. The number in this column is the base frame of the file and can be used with CORRELATE-FID to obtain the name of the file containing the GFE. Use the 'S' option with CORRELATE-FID (from the SYSPROG account) unless you know in which account the file resides, in which case CORRELATE-FID can be run from there.

Should a GFE be found during the FILE-SAVE, the GFE is logged as it used to be in the STAT-FILE; and the file containing the GFE is listed on the generated stat report.

There is a macro called FILES.WITH.GFES in the dictionary of the STAT-FILE which will generate a summary listing of only those files, if any, that contain a GFE. This macro is very useful for quickly and easily listing any GFEs that were logged by FILE-SAVE.

Suppose for example that your last FILE-SAVE was run from port 0. To generate the report of GFEs logged by that FILE- SAVE (with output to the printer), enter the following:

```
LIST STAT-FILE,PORT0 FILES.WITH.GFES (P)
```

NOTE: the specification of PORT0 here is for example purposes; you would want to specify the port number from which your FILE-SAVE last ran.

- Linda Denney

THINK TANK

TRANSACTION LOGGING FOR THE 7.0 REALITY OPERATING SYSTEM (V2.0)

Introduction

Transaction Logging is an operating system feature which gives the customer resilience. 'Resilience' as defined in Webster's Dictionary is "an ability to recover from or adjust easily to misfortune or change." Transaction logging allows customers to easily recover data which, for one reason or another, has been lost or damaged due to inadvertent deletion of files, GFE'S, or hardware problems such as disc crashes.

Transaction Logging on the REALITY Operating System is made up of three major components: the **Transaction Handler**, the **Transaction Logger**, and the **Transaction Logger Restore**. The **Transaction Handler** allows the system applications programmer to group and commit a series of updates to the database leaving it in a consistent state (after recovery) should the system crash when used with the **Transaction Logger**. The **Transaction Logger** allows the system manager to save a copy of all updates to selected files, or every file if desired, to a backup device such as a 1/2-inch tape drive or another machine.

This article will focus on **Transaction Handling** for 7.0.

Transaction Handling

Transaction Handling allows the systems applications programmer to group sets of updates which must all occur together, or not at all. An example of this would be updating inventory, shipping, and ordering files for a particular item that has just been shipped to a customer. The grouping and committing of updates together is referred to as a transaction. The programmer uses a set of transaction 'markers' (or 'actions'), telling the **Transaction Handler** what to do with the group of updates.

The first marker is the start marker, 'Transtart.' Transtart indicates to the **Transaction Handler** that all updates occurring to the database after this point are considered a single transaction.

When an update occurs inside of a transaction (i.e., the transtart has already been issued), the previous image of the item before any modifications) is put into an internal table. The modified item is then updated to the database, but the item lock is still kept so that no other processes may modify the item.

When the programmer is finished with the updates for the current transaction, the finish marker is executed, via the 'Transend' statement. This signals the **Transaction Handler** to 'commit' the items. Since the items are already updated to the disc, all that really needs to be done is to release all locks associated with the transaction, and then to throw away the previous images that are stored in the internal table.

However, should the programmer not wish to commit the updates to database, the rollback marker is executed, via the 'Transabort' statement. This signals to the **Transaction Handler** to rollback the updates which have occurred inside of this transaction. What occurs is the process takes the last item image in the internal table and copies it back to the database. The 'last item pointer' is then backed

up to the next to last item image, and that item image is copied back to the database.

This keeps looping until the beginning of the internal table is found. Once the beginning of the internal table is found, all items modified during the transaction have been undone, or rolled back to their previous images, and the item locks on those items are released. Just to note: If an item is created during the transaction, and the transaction is aborted, this has the effect of deleting the item. If an item is deleted inside of a transaction, the Transabort will recover the item.

The applications programmer also has the ability to see if the process which is executing the program is already inside of a transaction via the Transquery( ) function. This allows subroutines for error recovery to determine if the transaction should be aborted due to abnormal execution of the problem, such as breaking and ending out of an application.

This is important to determine because Transtarts cannot be nested; i.e., only one transaction open at a time! Transactions do have the ability to continue through multiple environment transitions, such as being started in Data/Basic, which executes a PERFORM <VERB> or <PROGRAM>, which might then call a proc which executes the Transend verb. Transaction markers can also be executed at TCL, giving the user the ability to rollback the execution of a verb, program, or proc, should the result not be correct.

Certain actions should NOT be executed inside of a transaction, although they are allowed. The CREATE-FILE and DELETE-FILE operations may cause serious corruption because the **Transaction Handler** is unable to keep an access lock on the file and its data sections.

Other processes which may have a FCB pointer to this file, or for that matter, single programs which have more than one file variable assigned to the file, will have problems accessing files which may be created during the transaction and then are rolled back. They will most probably be pointing to free overflow space when attempting to update an item in that file which they thought was committed to the database, but really wasn't. They will most likely create GFE's for other processes which may have been allocated that space.

A word to the wise: *Don't do file operations inside of transactions!* File operations outside of transactions are OK. CLEAR-FILE's are handled differently. If executed from inside of a transaction, each item is individually deleted, so that if the Transabort is executed, each item can be safely recovered.

Certain actions occuring inside transactions while at TCL are also prohibited. Attempting a Logto will cause the user to be asked to either abort or end the transaction first before proceeding. OFF, from inside a transaction, causes the same message to be displayed. An exception to this is the process of being forced off via the LOGOFF verb. If the process being forced off is inside of a transaction, the **Transaction Handler** will assume that the transaction is to be aborted. A Transabort is also assumed if the user is inside a transaction and types 'OFF' from the system debugger prompt(!).

Transaction markers are only valid for items existing on the machine where the start marker is executed. If the applications programmer remotely updates an item via the SLAN during the transaction, the update which occurs on the other machine is NOT considered to be inside of the transaction. If the applications programmer wishes to have the remote item held inside of a transaction, a client/server program can be written to execute the transaction on the remote machine, assuming of course that the remote machine is also running **Transaction Logging.**

Here is a list of transaction marker commands. Please see the appropriate manuals for further explanation.

```
For Data/Basic:

TRANSTART {transaction information} THEN/ELSE
TRANSEND {transaction information} THEN/ELSE
TRANSABORT {transaction information} THEN/ELSE
TRANSQUERY() (this is used as a function)

For Proc and TCL:
TRANSTART
TRANSEND
TRANSABORT
TRANSQUERY
```

• Larry Wisneski
Staff Software Engineer
McDonnell Douglas Information Systems International (MDISI)

Editors Note:

In future issues of ON-LINE Larry will cover The Transaction Logger, Transaction Logging Restore, and Transaction Logging Internals.

COMMS

Current COMMS Releases

The following is a Product/Release matrix describing the current release of software for the various communications products.

Any software fixes which may be required will only be produced for the most current release.

If you plan to upgrade your system to the next hardware system or operating system release, contact your local dealer or analyst to make sure you have the required communications software prior to the upgrade. If in doubt, have your dealer or analyst contact the Novadyne Computer Systems Inc. Communications Support Group at (800) 678-3399.

COMMS PRODUCT RELEASE	Series 4700	Series 6000	Series 9000	Series 14	Series 18
MCC 3.1 (Rev 4)	N/A	1.1	N/A	N/A	N/A
MCC (2.3) 3.1 (Rev 5)	N/A	2.3	N/A	N/A	N/A
MCC (6.0) 3.1 (Rev 3)	N/A	N/A	N/A	N/A	6.0
MCC (7.0) 4.1 (Rev 4)	N/A	7.0	N/A	N/A	7.0
HSCC (SNA) 2.3	N/A	7.0	N/A	N/A	7.0
SLAN (Ethernet)	N/A	7.0	N/A	N/A	7.0
XCC (X.25) 2.0 (Rev 2)	N/A	7.0	N/A	N/A	7.0
FTU 1.2 (Rev I)	4.3	1.1,2.3	1.3,5.3	2.3	6.0
FTU 1.3 (Rev G)	N/A	7.0	N/A	N/A	7.0
M3800 (2780) 1.3 (A)	4.3	N/A	1.3,5.3	N/A	N/A
M3800 (SNA) 5.3 (A)	4.3	2.3	1.3,5.3	N/A	N/A
5750 (TCL COMMS) Rev 2	N/A	N/A	1.3,5.3	N/A	N/A
2602 BISYNC	4.3	N/A	N/A	N/A	N/A

NOTES:

The MCC software for 7.0 systems consists of two tapes: 1) MCC software in INSTALL format; 2) 2780-TERMLIB-BASE in ACCOUNT-SAVE format.

The SLAN software is included on the 7.0 Sysgen tape. The software requires a "Virtual Port License" available from your dealer or VAR.

In addition to the software tape, X.25 requires a "Virtual Port License" available from your dealer or VAR.

5750 Communications Software no longer resides on the Sysgen tapes. If you require this software, have your dealer or VAR contact the Novadyne Computer Systems Inc. Communications Support Group.

2602 Bisync runs only on M4700 systems. The software is included on the Series 4700 4.3 Sysgen tape.

- Richard Yeh

PENRIL VCX NETWORK OFFERS VARIOUS CONNECTION TYPES

The VCX networking system offers several ways to connect to a resource. It allows the terminal user to select a port or contend for a port (known as switched service). It also allows the terminal user to be automatically connected without operator intervention (known as automatic service).

Switched service allows a terminal user to select a local port or a port anywhere in the network. If all ports in a desired group are busy, the request is placed in a queue and automatically connected when a port becomes available. Automatic service automatically connects a terminal user to one or two destination ports.

Whether to designate automatic or switched service to a terminal user depends on the type of access desired. Several types of access can be configured: dedicated, contended, dedicated with switch option, and switched.

Dedicated access: occurs when a terminal user requires access to a unique destination port. There is no requirement of the VCX to prompt for a connection so the terminal user is automatically connected to the predefined port.

Dual dedicated: same as above except the terminal user is given two destination ports that can be toggled by the use of a 'hot key.' It should be remembered that the dual autoconnect feature consumes two computer ports that cannot be used for any other terminal.

Contend access: occurs when several terminal users have access to a single resource. That resource has fewer ports than necessary if all terminal users are active at one time. The terminal user is said to have contended access since each terminal user must contend with the others on a first-come first-serve basis. The terminal user enters a destination. If all ports are busy, the request is put in a queue and automatically connected when the port becomes available.

Dedicated with switch option: in this application a terminal user to a large extent uses a dedicated resource, but occasionally accesses another. The terminal user is automatically connected to a predefined port and given the ability to select another destination by the use of a control state character. The terminal user can toggle between these two ports the same as in dual dedicated.

Switched access: in this case the terminal user requires access to several destinations. At the VCX prompt the terminal user enters the desired destination. If all ports are occupied switched access works like contended access.

During configuration, if the 'Auto connect A:' prompt is left blank, the port becomes a switched service port, allowing the terminal user to enter a destination.

However, if a name or pathname is entered it becomes an automatic service port. Specifying autoconnect port 'A' gives you the option of defining a second autoconnect port (Auto connect B).

Once configured, the terminal user can use a connect hold character to toggle between the 'A' and 'B' destinations. When the toggle is made the VCX displays the destination it is connected to on the screen.

The control state and control hold characters are reserved characters that the VCX does not send to the destination port. The control state character suspends the connection in progress and allows the user to communicate with the VCX. The control hold character toggles between two connections. If only one is active, the control hold character works just like the control state character.

If you have any questions on this or other VCX issues, please call 800-678-3399 for support.

- Helen James

SERIES 7000

SYSTEM RESTORE ON SERIES 7000

When using the system RESTORE utility some files are opened, existing entries are updated (ie. SYSACC), and others only add entries to the file... but no updates occur. The entries in the two files SYSASS and SYSQKL are not updated via system RESTORE. This happens regardless of the software release the site is currently using.

For example, you may modify the existing entry STD-LPTR, in the SYSASS file, to reflect a page depth other than 66 lines. However, when the RESTORE utility is used, the existing entry for STD-LPTR is not updated to reflect that change and the page depth returns to 66 lines after the system restore.

If, however, you add a new association, such as STD-WP to define a special type of forms handling, the RESTORE utility opens the SYSASS file and adds the new association to the file.

If there is any need to change an existing entry in these system files, copy the existing entry to a new name and update the entry under the new name.

The same thing occurs when modifying the Standard Keyword Dictionaries in the SYSQKL file; so instead of copying an existing dictionary, create a new dictionary.

We recommend creating new associations instead of changing standard associations in the SYSASS file, and creating new dictionaries instead of changing the dictionaries S1, S2, S3, 0 or 240.

- Ann Connelly

APPS

Current Application Overlays

The following matrix provides you with the release level of Application Overlays required by each supported Series and OS. It is important that you know which Overlay you should obtain prior to a planned upgrade. For example, if you are upgrading a Series 9000 from 5.1 to 5.3, which uses REALCALC, then you will need to obtain the corresponding Overlay release (REALCALC 2.1C) before upgrading.

Application Overlay	Series 4700	Series 6000	Series 9000	Series 18	Series 14/100
A*L*L 1.1	4.3	1.1	1.3	N/A	N/A
A*L*L 1.2 (Paper Patches 1-59)	N/A	2.3	5.3	6.0	2.3 D.4
PCmicroREALITY 2.0B	N/A	1.1	N/A	N/A	N/A
PCmicroREALITY 2.1	4.3	2.3	1.3,5.3	6.0	N/A
REALCALC 2.1C	4.3	1.1,2.3	1.3,5.3	6.0	2.3 D.4
REALGRAPH 1.0C	4.3	1.1,2.3	1.3,5.3	6.0	2.3 D.4
REALLINK 2.0	4.3	1.1,2.3	1.3,5.3	6.0	N/A
REALLINK 2.1 Rev. 4	N/A	2.3	5.3	6.0	N/A
REALISM					
DEVELOPER 1.0A	N/A	2.3	5.3	6.0	2.3 D.4
SHELL 1.0A	N/A	2.3	5.3	6.0	2.3 D.4
REALITY Integrated Office 2.3 (Overload Patch Tape Rev B -- 2.3, 5.3 and 6.0 O/S only)	4.3	1.1,2.3	1.3,5.3	6.0	N/A
WORDLINK 1.4	N/A	1.1	N/A	N/A	N/A
WORDLINK 1.4C	N/A	2.3	1.3,5.3	6.0	N/A
WORDMATE 2.1C (Overload Patch Tape Rev A and Paper Patches 1-7) (Overload Patch Tape Rev B -- 2.3, 5.3 and 6.0 O/S only)	4.3	1.1,2.3	1.3,5.3	6.0	2.3 D.4
TRANSACTION LOGGING 1.2	N/A	2.3	5.3	6.0	N/A

- Janet Altman

REALITY Integrated Office 2.3 Overload Patch Tape Rev B Availability

The REALITY Integrated Office 2.3 Overload Patch Tape Rev. B has been production released and is available for installation on 2.3, 5.3 and 6.0 operating systems. Contact your Field Engineer through Central Dispatch (1-800-678-3399) to schedule installation during the next site visit.

- Janet Altman

REALCALC 2.1C on SERIES 6000 2.X Operating Systems

The VERIFY-SYSTEM proc displays mismatches in frame 327 when Realcalc 2.1C is installed on the Series 6000 2.X operating system. To rectify the situation, logon to the SYSPROG account and establish a Q-pointer to the file AUROPLAN.PL in the REALCALC account.

```
:SET-FILE REALCALC AUROPLAN.PL
'QFILE' UPDATED
```

Next, copy the REALCALC frame from the AUROPLAN.PL file to the SYSTEM-OBJECT file.

```
:COPY QFILE AT.AUROPLAN.2 (O
TO: (SYSTEM-OBJECT SM-327
```

The VERIFY-SYSTEM proc should now run with no mismatches.

- Janet Altman

CAN'T CREATE A MEMO IN WORDMATE?

It's late in the day, almost time to go home. The boss comes out of his office and asks you to stay a little while longer and do up this important memo that has to go out tonight. "No problem," you respond. That is until you hit the keys CM and the system tells you there is no file! What do you do? No, you don't sneak out of the office before the boss sees you.

This problem has been seeing a resurgence in popularity lately. Someone has been cleaning up your files and probably found a file named DISTRIBUTION and maybe it was empty so it was deleted. Now it's my turn to say "No problem". In WORDMATE you need to type FM for File Maintenance. Then select CF for Create File. You are prompted to enter the file name.

At this point, type DISTRIBUTION and return. Now it asks you how many documents you expect to put in this file. And then answer no to have the file Transaction Logged. Thats all there is to it and you are ready once again to create a memo.

Please remember to create the file through WORDMATE. Creating a file at TCL would require you to identify the file as a WORDMATE file and through WORDMATE it does it automatically.

- Terry Smithton

MARKETING

NEW SALES AND MARKETING VICE PRESIDENT JOINS NOVADYNE

Robert (Bob) A. Garbutt joined Novadyne as Vice President of the Sales and Marketing organization on November 20, 1990, reporting directly to Chief Executive Officer Bert J. Novak. His responsibilities cover all sales and marketing functions, including the expansion of the company's ISO network, as well as building up our field service operations in North America.

Bob's experience and talents will play a vital role in an even more aggressive pursuit of new dealers and VARs, implementing an array of flexible, attractive and creative ISO programs to augment those already in place.

Bob comes to Novadyne from Jonas & Erickson, where he was president and CEO for the $30 million Value Added Reseller organization in the construction, property management, hospitality and distribution markets.

- Pat Dwight

MICRU NEWS

BENEFITS OF JOINING MICRU

In the last issue of ON-LINE you read about the 1990 MICRU International Educational Conference. This month we want to emphasize that MICRU International is the official organization of REALITY Operating System users. Anyone who uses one of these systems can be a member. MICRU is run by users for users of the system and is designed to provide an information exchange between users.

MICRU's membership stretches across the United States and Canada, with some international companies also participating. Beyond the annual educational conference, the group provides a periodic newsletter. MICRU also serves as a focal point for helping users meet other users or finding suppliers of software or other information which may not be readily available elsewhere.

Annual membership costs your company only $80.00. If you are interested, please send your name, company name, address, city,state, zip, telephone number, and of course the type of system you have.

Send this information and your check for $80.00 to: MICRU International, 1732 Montane Drive East, Golden, Colorado 80401.

If you have questions and need to reach MICRU International, please call (303) 526-9862 and leave a message. Your call will be returned.

- Herb Jackson
  President, MICRU International

CUSTOMER ED.

NEW TRAINING LOCATION IN CHICAGO

Novadyne is please to announce customer training classes in our Chicago office commencing July, 1991. Now, in addition to Dallas, Texas and Santa Ana, California, there is a third location to serve our customers. The schedule below shows only one class in Chicago, however more can be added if the demand warrants. As with all locations, we recommend enrolling for classes at the earliest convenience to guarantee a seat.

For those customers who prefer training at their own location, on-site training is a viable alternative that represents a considerable cost savings. We can also schedule a dedicated classroom for those customers who want training exclusively for their company. Please call Jim Lau at (714) 566-5086 for specific information regarding these alternatives.

DISCOVERY NAME CHANGE

Discovery Consultant Services has changed its name to Discovery Computer Systems and continues to be an authorized provider of REALITY Operating System training.

- Jim Lau

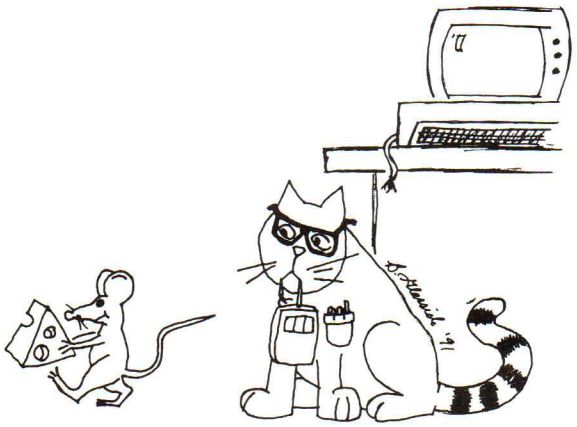
CUSTOMER EDUCATION SCHEDULE

		APR.					MAY				JUNE				JULY					AUG.			
	COURSES OFFERED	1	8	15	22	29	6	13	20	27	3	10	17	24	1	8	15	22	29	5	12	19	26
NOVADYNE	INTRO TO REALITY O/S 5 Days $1000/Person											SA						SA CH					
	REALITY O/S 7.0 4 Days $800/Person								SA													DA	
	INTRO TO DATA/BASIC 5 Days $1000/Person				DA																		
	ADVANCED DATA/BASIC 5 Days $1000/Person																SA						
	PROC PROGRAMMING 3 Days $600/Person					DA				SA 29-31													
	SYSTEM TROUBLESHOOTING 5 Days $1000/Person							SA															DA
	LX2100/UNIX 5 Days $1000/Person		SA									SA											
	LX2100/UNIDATA 5 Days $1000/Person												SA										
DISCOVERY	INTRO TO PICK/REALITY 4 1/2 Days $900/Person						DC									DC							
	ADVANCED PICK/REALITY 4 Days $900/Person			BO					DC												DC		
	ACCELERATED PICK/REALITY 4 1/2 Days $995/Person													DC									
	SYSTEM INTERNALS 4 Days $995/Person																					DC	
	APPLICATION PROGRAMMING 4 Days $900/Person											AT						TA					
	ADVANCED APP. PROGRAMMING 4 Days $900/Person				DC																		
	ACCEL. APP. PROGRAMMING 5 Days $995/Person																DC						
	ASSEMBLER PROGRAMMING 4 Days $950/Person					DC																	

LOCATION CODES: AT = ATLANTA, GA; BO = BOSTON; CH = CHICAGO; DA = DALLAS, TX; DC = WASHINGTON, DC; SA = SANTA ANA, CA; TA = TAMPA, FL.

NOTES: All classes begin on Monday unless otherwise indicated. The following courses are available upon request: ALL 1.2, PCmicro-REALITY, REALCALC, REALGRAPH, REALISM (Shell and Developer), REALLINK, REALITY Integrated Office, WORDMATE, Series 7000 Reformatting and Quickstarts, Series 7000 Basic Programming and Data Communications. Please call Jim Lau at (714) 566-5086 for more

GooFiEs



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