IDENT SYSTEM USERS! GUIDE

The Identsystem is a subsystem of TNLS. Its prompt character is >. The command to call it up is:

*[G]oto [I]dentification submode [CA]

In this submode one can enter new individuals, who are then recognized as users by the system, new Network organizations, new Network groups; check an existing entry for an individual, organization, or group; or change or modify such entries.

The question mark command (?) at this point will echo the following commands:

Enter identification for Modify record for Status for Ouit

Entering an individual at an organization known to the Identfile.

>[E]nter Identification for an Individual? [Y]es Last name: [Kidston] [CA] There are currently no Kidston's defined in the Identification system

The system will automatically capitalize the first letter of the name -- you needn't.

First name (or initial): [Carol] [CA] Middle initial (or middle name): [A.] [CA] Affiliation (which organization, university, etc.): [bbn-tenex] [CA] Assigning tentative Ident; Please wait.

If you type ? CA when it asks for Affiliation it will type a helpful message and ask if you want a list of all affiliations now in the system.

Ident: CAK OK? [Y]es/[N]o Assign Ident: [type desired

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Ident] [CA] Name: Kidston, Carol A. Affiliation: BBN-TENEX Mailing Address: BBN-TENEX Unverified

Do you wish to modify any of the above? [Y]es Use CD to abort; use Quit or Update to terminate modifications (type "? for list of modification commands)

Answer yes if you wish to correct any of the above or if you wish to add additional information.

A question mark (?) at this point will list the following commands:

Access Affiliation Coordinator Capabilities Delivery Expand normal references Function Group membership Host Imp ID (Priviledged Command) Mailing address Miscellaneous comments Name Phone Quit Secondary affiliation Status Subcollection(s): Update User

>>[P]hone
Old: None
New (just type CA if no change desired): [(617) 491-1850 ext
375] [CA]
>>[D]elivery
Old: None
New (just type CA if no change desired): [0]nline
>>[Us]er
Old: None

New (just type CA if no change desired): [bbn-tenex] [CA] >>[0]uit [CA]

use Quit if you have other things to change in the ident system and do not want to update the ident file now. Otherwise use Update.

Ident: CAK Name: Kidston, Carol A. Affiliation: BBN-TENEX Mailing Address: BBN-TENEX

Phone: (617) 491-1850 ext 375 Delivery: Online User: BBN-TENEX

Is the above correct? [Y]es Update Master Ident-File now? [N]o Your changes will be added to the Master Ident-File the next time someone updates it. Completed.

The system searches the file for individuals with the same last name before requesting the first name. This is to prevent accidental duplication.

The Affiliation must be an existing ident. (Entering individuals at new affiliations is covered in a separate example.)

Temporary ident -- the default ident is the person's initials (first, middle, last) plus the numbers 2 to 6, if necessary, to make the ident unique. The default can be overridden.

After the temporary ident is assigned, the system echoes everything it knows about Carol and asks if you have any changes. The first change should be insertion of a phone number. NIC requests anyone putting in a new individual also include the phone number in the following form:

(area code) [in parenthesis] Space Prefix-line number Space ext (lower case, no period) space number

In the modify mode the prompt is >>.

Carol is at a site that has access to the NIC's PDP-10. The default method of NIC [ARC] Journal mail delivery is hardcopy

via the U.S. Mail, except for people at SRI-ARC for whom the default for Journal delivery is Online (via their initial files). The "Online" in the above entry overrides the default, thus causing the Journal to deliver Carol's mail to her initial file. The User field of an individual need be filled in only if the individual is to receive Journal mail Online and is using (logging into) a TENEX directory whose name is not the same as his last name.

When entering a new individual who is to receive Online Journal delivery (and is a new ARC TENEX user), it is a good idea to create his initial file for him (this is a kindness, not a requirement). An initial file is named in the follwing way: <directory>ident.nls;#, where directory is his login directory name, ident is the two to four letter/number combination assigned him by the Ident system, nls is the extension, and # is the current version number. (See TENEX Users Guide for a better explanation).

First, connect to the correct directory (in EXEC) and go (back) into NLS. Then, using the Null File command, create a file with his Ident as the file name and Update it.

*[n]ull file [ident] [CA]
*Update [CA]

BE SURE TO UPDATE IT

The Quit command causes the system to echo once again all it knows about Carol. You can abort the entry by saying No when it asks "Is the above correct?" You do not have to update the Identfile after each entry (there is a delay since the file is so large), but do an Update before logging out for the day. Also, you must do an Update after putting a new person in the Identfile who is also going to be a member of a Network group. The system will not recognize the Ident (or be aware of any other changes that you have made) until the file is updated.

All new entries are collected in a group called NEWIDS, which is maintained by the NIC. The group is checked periodically for new members' idents. The entries for these ids are then checked and verified and the ident is deleted from NEWIDS. If you have any trouble putting someone in the Identfile, don't hesitate to call the NIC.

The malling address is assumed to be the same as the organization address. This can be changed in the Modify Mode:

>>[Ma]iling Address
Old: BBN-TENEX
New (just type [CA] if no change is desired): [50 Moulton
Street tv CR
Cambridge, Massachusetts 02139][CA]

The fV is only necessary if CR is your CA.

The "Status for" command requires either an ident or a query. In general, anytime the Ident system wants an Ident, you can instead type one of these query commands (followed by CA): 1) a period followed by a person's last name, 2) a ? followed by the first few letters of a person's last name, or 3) ?[followed by a string which is some part of the person's, group's, or affiliation's name, followed by]. In any of these cases, the Ident system will respond to your query and then again request an Ident. If the query resulted in only one Ident being found, you will be asked if that is the correct one. Typing CA will cause the Ident system to take that Ident as the one you meant.

>[S]tatus for [.Neumann] [CA] The following individuals with last name Neumann are already defined Neumann, Steve, Affiliated with: UCSB-MOD75, Ident = SN

Is this the correct Neumann? [Y]es Ident SN accepted

Ident: SN Name: Neumann, Steve Affiliation: UCSB-MOD75 Mailing Address: UCSB-MOD75

Phone: (805) 961-2274

If you knew the ident of the person you could type that in, in either upper or lower case; i.e., <[S]tatus for [sn]/[SN] [CA].

Entering an individual at a new affiliation.

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>[E]nter Identification for an Individual? [Y]es Last name: [Hirano] [CA]

There are currently no Hirano's defined in the Identification system

First name (or initial): [Chikafusa] [CA] Middle initial (or middle name): [CA] Affiliation (which organization, university, etc.): [/][new] Affiliation's name: [Hitachi, Ltd.] [CA] Affiliation's Address: [Central Research Laboratory V CR Nokubunji, Tokyo 185 V CR JAPAN] [CA] Do you want to assign Ident Now? [n]o/[y]es [type ident] [CA] Assigning a tentative Ident. Please walt. Tentative Ident is AFF-13 Updating Master Ident-File. Please wait. Ident for affiliation: AFF-13 has been accepted. Ident: CH2 OK? [y]es/[no] Assign Ident: [type desired Ident] [CA] Ident: CH2 Name: Hirano, Chikafusa Affiliation: AFF-13 Mailing Address: AFF-13 Unverified

Mr. Hirano has no middle initial; this is indicated by hitting CA after the system requests a middle initial or middle name.

The new affiliation is indicated by typing a slash, the system echoes [new] and asks for the name and address.

Again, if CR is your CA, you must use 'V to insert a CR in the address.

If the user is not an Ident-Wheel or does not choose to assign the ident to the affiliation, then the system assings a temporary Ident to the affiliation. Note the file is automatically updated after the temporary organization ID is assigned. The temporary ID will be changed later by the NIC. When it is later changed, Mr. Hirano's affiliation and mailing address will automatically be changed to the new ID.

If, in response to Affiliation, the user types CA, then the

system assumes the the new individual is an independent and asks for his mailing address (whatch out for [†]V again).

Do you wish to modify any of the above? No Updating master Ident-File; Please wait Completed.

>

Modifying a temporary affiliation ident.

>[M]odify record for [aff-12] [CA] Universite du Quebec Proceed? [Y]es >>[S]tatus Ident: AFF-12 Name: Universite du Quebec Unexpanded Membership: JBR2 ; Coordinator: Mailing Address: Seige social 2875 boulevard Laurier Sainte-Foy, Quebec 10, Quebec CANADA >>[Co]ordinator Old: None New (just type CA if no change desired): [jbr2] [CA] >>[ID]

Password: [type the password here] New Ident = [UQSS] [CA] Ident will be changed when you Update Master Ident-File. >>[Q]uit [CA] Ident: AFF-12 Name: Universite du Quebec Unexpanded Membership: JBR2 ; Coordinator: JBR2 Mailing Address: Siege social 2875 boulevard Laurier Sainte-Foy, Quebec 10, Quebec CANADA

Is the above correct? [Y]es Update Master Ident-File now? [N]o Your changes will be added to the Master Ident-File the next time someone updates it.

Completed.

The Coordinator field must be filled in for each organization. Generally, the coordinator is the technical liaison at each site. The Membership field is automatically completed by the system as each person is identified.

The Quit command again here echoes everything the system knows about AFF-12. Note that AFF-12 is still listed as the ID of the organization; this will not be changed until the file is updated.

The password requested here (in the ID command) is not the individual's password, but a special one recognized by the Ident system.

After the Identfile is updated, Joe Reid's entry will look like the following example:

>[S]tatus for [jbr2][CA] Ident: JBR2 Name: Reid, Joseph B. Affiliation: UQSS Mailing Address: UQSS

Phone: (418) 657-2323

Network Groups are set up at the request of a coordinator, the person in charge of that group, and addition of new members or deletion of old members is also made at the coordinator's request. Essentially groups exist so that distribution of Journal documents can be made to a collection of people by typing just one ident -- the ident of the group -- rather than typing many individual idents.

To enter a new group in the Identfile:

>[E]nter Identification for an Individual [N]o Enter identification for a(n) [G]roup [CA]

Name: [Network Associates Group] [CA] Group Coordinator: [SDC2] [CA] Membership list: [ts3 lp ra2 yl rhh mz dc2 mp lfd tl mom pk 9

djf dt ajb del aks dda db ts rmv ema hl jcl rfh cds mpb rla]
[CA]
Assigning tentative Ident; Please wait.
Ident is NAG ok? [y]es/[n]o Assign Ident: [type desired ident]
[CA]

Ident: NAG Name: Network Associates Group Expand Membership: TS3 LP RA2 YL RHH MZ DC2 MP LFD TL MOM PK DJF DT AJB DEL AKS DDA DB TS RMV EMA HL JCL RFH CDS MPB RLA ; Coordinator: SDC2 Mailing Address: SDC2

Is the above correct? [Y]es Update Master Ident-File now? [N]o Your changes will be added to the Master Ident-File the next time someone updates it. Completed.

As is the case for organizations, each group must have a coordinator. Steve Crocker (SDC2) is the coordinator of the Network Associates Group. The ident system assigns Steve's address (the mailing address listed in Steve's id entry) as the mailing address for this group.

Group members may be added by typing .Lastname (if that person is already in the Ident-File) or each person's Ident, separated by spaces.

To change the membership of a group:

>Modify record for [nag][CA] Network Associates Group
Proceed? [Y]es
>>[G]roup membership

Old: TS3 LP RA2 YL RHH MZ DC2 MP LFD TL MOM PK DJF DT AJB DEL AKS DDA DB TS RMV EMA HL JCL RFH CDS MPB RLA ; New (just type CA if no change desired): >>>[A]dd [wtm] [CA] >>>[D]elete [LP] [CA] >>> [CA] Quit >>>[Q]uit [CA] Ident: NAG Name: Network Associates Group

Expand Membership: WTM TS3 RA2 YL RHH MZ DC2 MP LFD TL MOM PK DJF DT AJB DEL AKS DDA DB TS RMV EMA HL JCL RFH CDS MPB RLA ; Coordinator: SDC2 Mailing Address: SDC2

Is the above correct? [Y]es Update Master Ident-File now? [N]o Your changes will be added to the Master Ident-File the next time someone updates it. Completed.

The new members may be typed in as an ident, or the last name preceded by a period can be typed in and the system will search for people with that last name and ask you to pick the correct one. If the person is new to the file, he must be entered in the Identfile before he is entered in as a member of the group.

The operation for deleting someone from a Network Group is much the same.

An Example of Someone Who Has Changed Affiliations on the Network

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>[M]odify record for [DEL] [CA] Liddle, Dave E. OWENS Proceed? [Y]es/[CA]/SP >>[Af]filiation [CA] Old: OWENS New (just type [CA] if no change desired): [PARC-MAXC] [CA] >>[Ma]iling address Old: OWENS New (just type [CA] if no changed desired): [PARC-MAXC] [CA] >>[P]hone Old: (419) 242-6543 New (just type [CA] if no change desired): [(415) 493-1600] [CA]

>>[0]uit [CA]
Ident: DEL
Name: Liddle, Dave E.
Affiliation: PARC-MAXC
Mailing Address: PARC-MAXC

Phone: (415) 493-1600

Is the above correct? [y]es Update Master Ident-File now? [n]o Your changes will be added to the Master Ident-File the next time someone updates it. Completed.

Note that if someone changes his affiliation (place of work) from one Network site to another, his address and phone number must also be changed. In cases where the "User" field and "Online" delivery are specified, these would also have to be modified.

The second part of this change in an Individual's location involves changing the membership list of his former affiliation. This is not done automatically by the Ident system.

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>[M]odify record for [owens] [CA] Owens Illinois Inc. Proceed? [y]es >>[St]atus Ident: OWENS Name: Owens Illinois Inc. Unexpanded Membership: DEL; Coordinator: DEL Mailing Address: Lewis Development Park, Bldg. 30 Perrysberg, Ohio 43551

Phone: (419) 242-6543 Delivery: Hardcopy

>>[Mi]scellaneous comments
Old: None
New (just type CA if no change desired): [SPECIAL][CA]
>>[Q]uit [CA]
Ident: OWENS
Name: Owens Illinois Inc.
Unexpanded
Membership: DEL;
Coordinator: DEL
Mailing Address: Lewis Development Park, Bldg. 30
Perrysberg, Ohio 43551

Phone: (415) 242-6543

Delivery: Hardcopy Comments: SPECIAL

Is the above correct? [y]es Update Master Ident-File now? [Y]es Updating Master Ident-File; please wait. Completed.

The Miscellaneous Comments field was invented because once someone is entered in the Identfile, they're in for eternity (or until the Delete command is implemented). Marking an entry "SPECIAL" ensures its ommission from the Directory. If an individual entry is marked "SPECIAL", that entry must be deleted from all groups in which it appears. Otherwise, that Ident will show up as a "Bad ID in Membershiplist" when the Directory is run.

The third part of this change in affiliations involves adding the individual's name to the Membership List of his new affiliation. This, also, is not done automatically by the Ident System.

>[M]odify record for [parc-maxc] [CA] Xerox PARC Proceed? [Y]es/[CA] >>[G]roup membership

Old: GWM RES WT DDC EHS WKE CJ EMM JIE AMP DIAN ERF DGB ACK JGM BWL LDP; New (Just type CA if no change desired): >>>[A]dd [del] [CA] >>>[CA] Quit >>[Up]date [CA] Ident: PARC-MAXC Name: Xerox PARC Unexpanded Membership: DEL GMW RES WT DDC EHS WKE CJ EMM JIE AMP DIAN ERF DGB ACK JGM BWL LPD ; Coordinator: LPD Mailing Address: Computer Systems Building 3180 Porter Drive Palo Alto, California 94304

Phone: (415) 493-1600

Updating the Master Ident-File; please wait.

Completed.

The Host and Imp commands are used to identify the NETWORK site (according to TENEX) of each organization's Host and Imp. I have used these commands only with affiliations, and not very consistently because I don't know the correct names to put in. I imagine the original purpose was to have the Host and Imp names identified for each site to correspond to the Resource Notebook. Probably someone should check with Jake Feinler to get the correct names and insert them for each site.

This will become more important when we start delivering Journal mail through the NET to other sites.

The Secondary Affiliation command is used occasionally when someone is working mainly at one site but connected in some way to another. For example, Bob Metcalfe (now at Xerox Palo Alto Research Center) at one time was working at MIT but completing his thesis through Harvard. As I said, this command is used very infrequently.

The Function command refers to one of three Network roles -- that of Station Agent, Technical Liaison, or Principal Investigator. An individual may have more than one function; i.e., Station Agent and Liaison. Incidentally, the Technical Liaison is indicated as a 'Liaison' in the Identfile.

>[S]tatus for [dce] Ident: DCE Name: Engelbart, Douglas C. Affiliation: SRI-ARC Mailing Address: Augmentation Research Center Stanford Research Institute Menlo Park, California 94025

Phone: (415) 326-6200 ext 2220 Function: Principal Investigator

>[S]tatus for [.Pyke] [CA] The following individuals with last name Pyke are already 15

defined Pyke, Thomas N., Affiliated with: NBS-CCST, Ident = TNP

Is this the correct Pyke? [Y]es

Ident TNP accepted

Ident: TNP Name: Pyke, Thomas N. Affiliation: NBS-CCST Mailing Address: National Bureau of Standards Center for Computer Science and Technology Washington, D.C. 20234

Phone: (301) 921-2601 Function: Network Program Manager and Liaison Delivery: Online Hardcopy User: nbs-tip

Note that Tom Pyke's Affiliation and User field are not the same. The User field must be the same as the TENEX directory that individual is using.

The Subcollection subfield is an optional one. It is used to specify into which subcollection Journal documents authored by an individual or group or affiliation are placed. The Subcollection subfield must have the same name as an existing ident in order for it to work properly. There is also a Subcollection(s) command in the Journal System. Again, the Subcollection specified must be an existing Ident.

>[S]tatus for [jhb] [CA] Ident: JHB Name: Bair, James H. Affiliation: RADC Mailing Address: Rome Air Development Center Griffiss Air Force Base Rome, New York 13440

Phone: (315) 330-7834 Sub-Collection: RADC Delivery: Online User: BAIR

The default Sub-Collection for SRI-ARC people is SRI-ARC,

for Network people the default is NIC, and for RADC people the default is RADC.

An example of someone who was put in the Identfile over the Net, apparently by someone using an uppercase only terminal.

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>[M]odify record for [dc3] [CA] CANTOR, DON CCA Proceed? [Y]es >>[N]ame CANTOR, DON Last name: [Cantor] [CA] First name (or initial): [Don] [CA] Middle initial (or middle name): [CA] >>[St]atus Ident: DC3 Name: Cantor, Don Affiliation: CCA Mailing Address: CCA Unverified

>>[V]erify [CA] Password: [the password is typed here] [CA]
>>[P]hone
Old: None
New (just type [CA] if no change desired): [(617) 491-3670]
[CA]
>>[Up]date [CA]
Ident: DC3
Name: Cantor, Don
Affiliation: CCA
Mailing Address: CCA

Phone: (617) 491-3670

Updating the Master Ident-File; please wait. Completed.

>

Mr. Cantor's name had to be altered because someone on the NET apparently didn't know how to indicate upper and lowercase letters. There is nothing wrong with this except that it looks awkward in the Ident Directory which is published periodically. To change it, you have to modify the name as in the example above.

Then the Ident is verified by an Ident-wheel and the phone number is added. This may necessitate calling the site to check extensions or whatever. The file is either updated at this point or before quitting for the end of the day.

Examples of maintaining the NEWIDS group.

The group NEWIDS is the place in the Identfile where all new entries to the file appear as members of that group. NIC maintains the NEWIDS group. This involves someone (an Ident wheel) checking the group periodically, by using the modify and status commands as shown below, for new members. Each new Ident will appear followed in parenthesis by the ident of the person who has put the new Ident in the file. Each Ident is then individually checked for all the appropriate fields and proper appearance. >[M]odify record for [newids] [CA] Newids Proceed? [Y]es >>[St]atus Ident: New Idents Name: Newids Unexpanded Membership: JHC (ARPA) CMG (RES) DC3 (ARCG) EAE (SA) TJB (CHI) SA (BER) DGR (SJL) SJL (ARPA) DES (LMM); Coordinator: BER Mailing Address: BER BER

Comments: SPECIAL

>>[G]roup membership

Old: JHC (ARPA) CMG (RES) DC3 (ARCG) EAE (SA) TJB (CHI) SA
(BER) DGR (SJL) SJL (ARPA) DES (LMM);
New (just type CA if no change desired):
>>>[D]elete [jhc cmg dc3 eae tjb dgr sjl des sa][CA]
>>> [CA] Ouit
>>>[Up]date [CA]
Ident: NEWIDS
Name: Newids
Unexpanded
Membership: ;
Coordinator: New Idents
Mailing Address: BER
BER
Comments: SPECIAL

Updating the Master Ident-File; please wait.

Completed.

>

Apparently, in this example I had previously checked each Ident that I did not enter myself. As a general rule, I DO NOT DELETE AN IDENT FROM THE MEMBERSHIP LIST OF NEWIDS UNTIL IT IS CHECKED. It's just too easy to forget where you are and what you're doing if you delete the Ident first, and once it's deleted, it's virtually lost to you. Of course, since all new entries are added to the beginning of each of the four branches in the IDENTS.MASTER file (Used IDs, Individuals, Groups, and Affiliations), you could find them that way, but that's a last resort.

WHAT TO DO WHEN THE SYSTEM CRASHES IN THE MIDDLE OF AN UPDATE

IF YOU ARE NOT IN THE MIDDLE OF AN UPDATE WHEN THE SYSTEM CRASHSD, NOTHING NEED BE DONE FOR THE IDENT SYSTEM If you were in the middle of a Master Ident-File update when the system crashed and there is a partial copy file in <identfile> for idents.master then

if the highest version number of the idents, master file is one higher than the number on the partial copy, then

the update did not complete and the highest version of idents.master should be deleted and the idents.master file that is left should be verified in nls (use LOAD LOCKED FILE) and Execute STatus File should show that it is locked.

If it is bad, unlock it. If it is still bad, delete the highest version (this may mean undeleting the next lower version number in order to have an Idents.master file around).

NOTE: DELETING EITHER THE PARTIAL COPY OR THE FILE ITSELF MAY MEAN THAT SOME CHANGES OR ADDITIONS GOT LOST, SO DON'T DO ANY DELETING UNLESS YOU KNOW WHAT YOU ARE DOING

Otherwise, the idents.master file should be verified in NLS (use LOAD LOCKED FILE). IF it is bad, it should be unlocked. If File Verify still says it is bad, the highest version should be deleted.

Otherwise, the file should be verified in NLS. If it is bad, delete the highest version and repeat.

The password for the <identfile> directory is ARC.

IF all of this fails, get the idents.master file from the last dump and repeat until you get a good one. Also, the file Idents.backup is a periodic copy of idents.master. It should have a version number which was the idents.master file from which it was copied. If there is too great a disparity, then

the idents.master from the last dump is preferable. IF all else fails copy idents.backup to the next version of idents.master. UNDER NO CIRCUMSTANCES do any modifications or an Update without first checking the idents.master file. Also, dont be too quick to delete the partial copy, because all work since the last update will be lost. This may involve changes other people have made and you have no way of finding out who to notify. This is one reason why you should update the master ident-file after a few changes and not wait for a lot of changes to accumulate.

I intend to remove the option of not updating the master ident-file after a modification for all users except Ident-Wheels.

One can load the real master ident-file and look at it like any other NLS file. There is, however, NO WAY for the average user to edit the master ident-file other than using the subsystem as discussed in this document. Special user's may use the NLS command Load Locked File to edit the file -- DON'T DO THIS UNLESS YOU KNOW WHAT YOU ARE DOING Some examples of what entries look like in the real file follow:

```
An Individual's Entry:
('Meissner') LAST NAME
(PM) Meissner, Paul
NBS-CCST
```

Delivery: Online; Phone: (301) 921-2601; User: NBS-TIP: Note that Paul's User field (and TENEX directory) does not have the same name as his site's Ident. The entry for a Network Group: (PRG) Expand Group REK2 NA FD HF LK RMM EBS; Packet Radio Group REK2 REK2 The 'Expand' in the first line refers to Journal delivery and means that a document sent to the Ident PRG will go to each person listed in the membership list; i.e., REK2, NA, FD, HF, LK, RMM, and EBS. PRG is the Ident for the group, Packet Radio Group is the group's

name. REK2 is the coordinator and the "mailing address".

The entry for an affiliation

(SRI-ARC) Expand Affiliate CBH SRL EKM CFD ARCG JAKE HAND KIRK NDM KFB RP JEW JFV DSK PR MDK WRF LLL MFA WLB DCE BAH MEH JDH CHI MEJ HGL JBN JCN WHP JCP JR EKV DVN KEV DCW RWW DIA ; Stanford Research Augmentation Research Center 333 Ravenswood Avenue Menlo Park, California 94025 (SRI-AI) Affiliate NJN2 WPR LBC MEL REF DEW BR BMW LSC ; Stanford Research Institute BMW Artificial Intelligence Center 333 Ravenswood Avenue Menlo Park, California 94025

IMP: 2; Host: 1; Delivery: Hardcopy; You'll notice that the first entry is an Expand Affiliate which means that a document sent to SRI-ARC goes to every person in the membership list. In the second example, a document sent to SRI-AI would go only to the Liaison, Mike Wilbur. Also, the second example has the IMP and Host numbers listed. This should be

The last thing I have to tell about is how to sort the Identfile prior to printing it. Since it is such a large file it's best to log in as Catalog or NIC-Work to make sure you have enough disk space. Then in EXEC copy the <IDENTFILE>IDENTS.MASTER; (highest version -- use altmode) to the appropriate directory. Then go into NLS and load the copied file IDENTS.MASTER

The second, third and fourth branches of the Identfile contain the entries for Individuals, Groups, and Affiliations, respectively. Those are the branches that will be sorted. The command is:

*[G]oto [S]ort [B]ranch at [.2] / [.3] / [.4] [CA].

done for all sites eventually.

Then do an Output Quickprint with y viewspecs and delete the copied file and its partial copy.

Irby, H. Charles Augmentation Research Center Stanford Research Institute Menlo Park, California 94025

> To: Irby, H. Charles

Augmentation Research Center

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(J14288) 5-FEB-73 17:39; Title: Author(s): Irby, H. Charles/CHI; Distribution: Lee, Susan R., Kudlick, Michael D., Van Nouhuys, Dirk H., Auerbach, Marilyn F., Lane, Linda L., Kelley, Kirk E., Byrd, Kay F., Meyer, N. Dean/srl mdk dvn mfa lll kirk kfb ndm (MDK does not think this should be COM'ed, so I resubmitted it); Sub-Collections: SRI-ARC; Clerk: CHI;

.YBL=2p

CHI 5-FEB-73 9:51 14289

Partial Copies or Not Partial Copies

This is an attempt to put into writing the outcome of a conversation among WHP, DIA, DCW, and CHI on 30-Jan about NLS file structure (CFD has also had some thoughts along these lines).

WHP and DCW were of the opinion that Partial Copies should be done away with--that they are confusing and costly and are not buying us very much.

WHP suggested that we simply do away with them. This means that when a user loaded a file it would be opened for READ. If he attempted to modify it, the file would be closed and re-opened for READ/WRITE and the modification would take place. When the file was closed another user could modify it. Also, a lock mechanism could be used and "updating" would amount to clearing the lock (in FDB) and closing the file and re-opening it for READ.

This approach has the advantage that it is very simple, easy to understand, and more efficient. It has the disadvantage that it is less reliable -- files being modified when Tenex crashes may be bad when Tenex restarts. Also, a file, that is currently being read by one user cannot be written by another. And conversely, a file that has been modified and not yet closed cannot be read by other users.

A copy command could be implemented so that users could save good copies of files so they would have something to back up to if a file goes bad--otherwise one must back up to the last dump.

One came argue that a user has no business reading a file which is currently being modified and that one can copy a file if he needs to modify it and it is being read by another user.

DIA and CHI claimed that the P.C. mechanism has bought us a very stable file system, was not very expensive (DIA will try to measure this), and that users should be instructed not to delete P.C. files, etc.

We all agreed that getting rid of P.C. files as distinct files would simplify life for users. After further discussion, it was suggested that the P.C. "file" could be combined with the original file so that the file could be manipulated at the EXEC level without difficulty. The scheme is as follows.

1

1a

1a1

1a1a

lala1

1a1a2

1b

1c

CHI 5-FEB-73 9:51 14289

Partial Copies or Not Partial Copies

When a user loads a file, it is opened READ-THAWED, with the file header being in page 0 (WRITE-THAWED if the user-settable word indicates this user has the file locked, in which case the file header is assumed to be in page 1). If the user tries to modify it, the user-settable word is inspected to see if it is already locked. If not, the user settable word is set to indicate that this user has it locked, the file is closed and reopened write-thawed, and the header page is copied to page 1.

Thereafter, when a page which has not been previously modified must be modified it is copied and the new header updated to point to the new page, which is then modified (new pages are allocated and pointed to by the new header).

"Unlock" then amounts to clearing the user-settable word, deleting the copied pages, and the copied header.

"Update to new version" amounts to creating a new version of the file with the copied header and all the pages it points to, and Unlocking the old version.

"Update to old version" amounts to closing the file and reopening it for write (this will fail if any other user is reading the file as now happens with Update to old). Then the old copies of pages which have been modified are deleted and the new header is PMAPed over the old and the user-settable word id cleared.

This approach would appear to be as realiable as the present scheme (since there is a nice way to back up to pre-modified state) and less confusing to users (No P.C. files) and the Archive system. It has the nice attributes of the P.C. system but is less expensive at open time. It is as expensive as the current P.C. system during modifications to the file (because pages have to be copied--about 1 m.s. per copy) and more expensive than WHP's approach.

The existence of P.C. files is useful for finding out what files you have locked. This would go away.

I urge all of you to think about this some more. What other possibilities are there? -- Charles

1c1

1c2

1c3

1c4

1c5

1c6

1c7

Partial Copies or Not Partial Copies

(J14289) 5-FEB-73 9:51; Title: Author(s): Irby, H. Charles/CHI; Distribution: Victor, Kenneth E. (Ken), White, James E. (Jim), Dornbush, Charles F., Michael, Elizabeth K., Vallee, Jacques F., Mitchell, James G., Deutsch, L. Peter, Kaye, Diane S., Andrews, Don I., Bass, Walt, Hopper, J. D., Irby, H. Charles, Lehtman, Harvey G., Watson, Richard W., Kudlick, Michael D., Norton, James C., Engelbart, Douglas C., Ferguson, Ferg R., Wallace, Donald C. (Smokey), Victor, Kenneth E. (Ken), Mitchell, James G., Deutsch, L. Peter, Van Nouhuys, Dirk H./npg rww mdk jcn dce tenext jgm lpd dvn ; Sub-Collections: SRI-ARC NPG TENEXT; Clerk: CHI; Origin: <IRBY>NLSFILES.NLS;3, 5-FEB-73 9:49 CHI ; To arrange a visit for Professor Imsong Lee, UCB

DCE 5-FEB-73 19:36 14290

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To arrange a visit for Professor Imsong Lee, UCB

Professor Imsong Lee, EE Staff, UCB (642-2660), called me on 23 Jan 73, saying that he would like to visit us some time. He is interested in text processing, interactive graphics, and small computers. Special interest right now in building a small-machine editing system -- mentioned something babut "special chips," so I gather that he considers special-purpose hardware. He said that he had also been involved in processing Chinese text.

I told him that I would have somebody (who could match his interests reasonably well) call him back and make direct, personal arrangements for a visit. (Then I misplaced the note.)

I would like for Dick to settle on "the someone" that will call, arrange the visit, and be the host. Volunteers?? I'd like to meet the man, myself, but not spend much time at it.

To arrange a visit for Professor Imsong Lee, UCB

(J14290) 5-FEB-73 19:36; Title: Author(s): Engelbart, Douglas C./DCE; Distribution: Watson, Richard W., Irby, H. Charles, Bass, Walt, Kudlick, Michael D., Vallee, Jacques F./rww chi wlb mdk jfv; Sub-Collections: SRI-ARC; Clerk: DCE;

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SMFS problem

Jim, we have a copy of SMFS at BBN. I tried to send a file with it and got back the message "Unsupported Filename".

Data: Username [ucalf] Acct [1] copy command; to ucsb; file CCNGUID.TXT;1 to be named CCNGUID.

Any thoughts? D/

SMFS problem

(J14291) 5-FEB-73 15:57; Title: Author(s): Crocker, David H./DHC; Distribution: White, James E. (Jim)/JEW; Sub-Collections: NIC; Clerk: DHC;

1

RADC Use Statistics

I noticed in the weekly stat run on system useage that there is no entry for Rzepka--I know he has been using TNLS quite heavily for the past couple of weeks. Can you verify this from your end? Also dfb has been using stellato directory. Would this show up in your run?

RADC Use Statistics

(J14292) 5-FEB-73 11:14; Title: Author(s): Stone, Duane L./DLS; Distribution: Rzepka, William E., Stellato, Josephine R., Hardeman, Beauregard A./wer jrs bah ; Sub-Collections: RADC; Clerk: DLS;

1

New RADC TNLS Users

Van Alstine, Liuzzi(correct spelling), Calicchia, Johnson, and Bergstrom comprise the rest of Mac^{*}s section. Mac issued a dictate recently that everyone in the section would prepare their textual work on NLS--even if the typist had to retype it. His reason for this was to assure a certain level of use of the system and thereby raise their skill in using TNLS. This is only for a one month period, after which they will be allowed to use DEX via Marcelle Dave Luther apparently arranged an account with Doug some time ago--primarily for demo purposes. He works in another building on base in the Intelligence Division, and has an IMLAC.

New RADC TNLS Users

(J14293) 5-FEB-73 11:56; Title: Author(s): Stone, Duane L./DLS; Distribution: Norton, James C./jcn ; Sub-Collections: RADC; Clerk: DLS;

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2a

NLS Continuig Education for the Next Two Weeks

This week there will be no continuing NLS education because of the TNLS classs. Next week (the 15th) we will try to bring people up on changes

in the system since ICCC from the viewpoint of users.

Please tell me if you know about changes you suspect no one else knows about.

NLS Continuig Education for the Next Two Weeks

(J14294) 5-FEB-73 10:07; Title: Author(s): Van Nouhuys, Dirk H./DVN; Distribution: Hoffman, Carol B., Lee, Susan R., Michael, Elizabeth K., Dornbush, Charles F., ARC, Guest O., Feinler, Elizabeth J. (Jake), Handbook, Augmentation Research, Kelley, Kirk E., Meyer, N. Dean, Byrd, Kay F., Prather, Ralph, White, James E. (Jim), Vallee, Jacques F., Kaye, Diane S., Rech, Paul, Kudlick, Michael D., Ferguson, Ferg R., Lane, Linda L., Auerbach, Marilyn F., Bass, Walt, Engelbart, Douglas C., Hardeman, Beauregard A., Hardy, Martin E., Hopper, J. D., Irby, H. Charles, Jernigan, Mil E., Lehtman, Harvey G., North, Jeanne B., Norton, James C., Page, Cindy, Paxton, William H., Peters, Jeffrey C., Ratliff, Jake, Van De Riet, Edwin K., Van Nouhuys, Dirk H., Victor, Kenneth E. (Ken), Wallace, Donald C. (Smokey), Watson, Richard W., Andrews, Don I., Stone, Duane L., Bair, James H., Lawrence, Thomas F./sri-arc dls jhb tfl ; Sub-Collections: SRI-ARC; Clerk: DVN;

DVN 5-FEB-73 17:23 14295

Terminal Work Habits; notice of survey

| For his paper Design Considerations for Knowledge Workshop Terminals (13245,) Doug has asked for some informationa bout how we use the terminlas. | 1 |
|--|-------|
| In the next two days Kirk Kelley will try to observer every regular display user working in NLS for about 10 minutes to fill out the following form. | 2 |
| DISPLAY TOOLS USE SURVEY | 2a |
| PARAMETERS | 2b |
| When did you start using displays? | 2ь1 |
| Length of time observed | 2ь2 |
| Pattern of hand change | |
| | |
| | 2b3 |
| Load Average | 2ъ4 |
| KEYSET | 2c |
| Pattern of hand change | |
| | |
| | 2c1 |
| Type of characters entered from keyboard | 2c1a |
| String | 2c1a1 |
| Unknown keyset character | 2c1a2 |
| Finger placement | 2c2 |
| Looking at keyset | 2c3 |
| MOUSE | 2d |
| Placement of mouse | 2d1 |
| Fingers used | 2d2 |
| INVISIBLES ON | 2e |
Terminal Work Habits; notice of survey

He will ask you to do a logstat and how long you have been using display and will try to disturb your work as little as possible.

3

Terminal Work Habits; notice of survey

(J14295) 5-FEB-73 17:23; Title: Author(s): Van Nouhuys, Dirk H./DVN; Distribution: Hoffman, Carol B., Lee, Susan R., Michael, Elizabeth K., Dornbush, Charles F., ARC, Guest O., Feinler, Elizabeth J. (Jake), Handbook, Augmentation Research, Kelley, Kirk E., Meyer, N. Dean, Byrd, Kay F., Prather, Ralph, White, James E. (Jim), Vallee, Jacques F., Kaye, Diane S., Rech, Paul, Kudlick, Michael D., Ferguson, Ferg R., Lane, Linda L., Auerbach, Marilyn F., Bass, Walt, Engelbart, Douglas C., Hardeman, Beauregard A., Hardy, Martin E., Hopper, J. D., Irby, H. Charles, Jernigan, Mil E., Lehtman, Harvey G., North, Jeanne B., Norton, James C., Page, Cindy, Paxton, William H., Peters, Jeffrey C., Ratliff, Jake, Van De Riet, Edwin K., Van Nouhuys, Dirk H., Victor, Kenneth E. (Ken), Wallace, Donald C. (Smokey), Watson, Richard W., Andrews, Don I./sri-arc ; Sub-Collections: SRI-ARC; Clerk: DVN;

DVN 5-FEB-73 9:34 14296

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1a

2

Auerbach "DM-1 is of Special Interest in Planning to Communicate with Other Systems; Note on 14165,6e4.

The people at Rome are committed to implementing at Rome, on a 635 I believe, the Auerbach DM-1 data managment system.

There is some skyblue conversation about connecting it to NLS in (journal, 13015,)

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I know very little about DM-1; I'm sure more could be learnd from the Romans if we asked.

DVN 5-FEB-73 9:34 14296

Auerbach "DM-1 is of Special Interest in Planning to Communicate with Other Systems; Note on 14165,6e4.

(J14296) 5-FEB-73 9:34; Title: Author(s): Van Nouhuys, Dirk H./DVN; Distribution: Watson, Richard W., Victor, Kenneth E. (Ken), Michael, Elizabeth K., Norton, James C., Stone, Duane L., McNamara, John L./rww kev ekm jcn dls (14165 is well worth your reading re our plans) jlm ; Sub-Collections: SRI-ARC; Clerk: DVN;

Telling DHS How to See Her Journal Mail

Dale -- You will get your Journal messages by commanding P[rint] B[ranch] .0 CR CR right after you have entered NLS. Your messages are in your Initial File if you are identified in the Ident file for online delivery. I forgot to check this before starting this message. If you are not now set up for online delivery, you will get it in hardcopy in the mail. Also, if you are not set up for online delivery, we will change it so you are. -- Jeanne P.S. Your messages were received, obviously. Telling DHS How to See Her Journal Mail

(J14297) 5-FEB-73 14:33; Title: Author(s): North, Jeanne B./JBN; Distribution: Stern, Dale H., North, Jeanne B./DHS NICSTA ; Sub-Collections: SRI-ARC NICSTA; Clerk: JBN;

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response to jbp's 14259

John:

Pursuant to your most recent request, the following might be of help:

Jim Fry and associates (Prof. Teicherow) were involved in the develop-

ment of a capability named ISDOS which was reviewed in Datamation.

Jim is a personal friend and he and his associated have been working

in the area of your interest some time. Why don't you give him a call and ask what they are up to and what they have available. His

address and phone number are:

Jim Fry Dept. of Inductrial Engineering University of Michigan Ann Arbor, Michigan (313) 763-3580

Please let me know if he is of help, I will let you know of any other such capabilities that we may find. Jean Iseli (J14299) 5-FEB-73 8:41; Author(s): Iseli, John/JI; Distribution: Postel, Jonathan B./JBP; Sub-Collections: NIC; Clerk: JI;

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Failure of Journal Message system

This is a test message to see if MAW is a legitimate NLS ID. If you get it I would appreciate knowing about it.---D STONE

1

Fallure of Journal Message system

(J14300) 5-FEB-73 6:36; Title: Author(s): McNamara, John L./JLM; Distribution: Sliwa, Frank P./FPS; Sub-Collections: RADC; Clerk: JLM;

final(?) imlac protocol

this document supercedes my previous documents. this protocol wll be implemented in the very near future. please get in touch with me about any questions or comments. final(?) imlac protocol

| IMLAC to TEN PROTOCOL | 1 |
|--|--------|
| IF keyboard input THEN | 1 a |
| CASE char OF | 1a1 |
| =CA, =CD, =CDOT, = $^{\dagger}D$, = $^{\dagger}B$, = $^{\dagger}X$: | 1a1a |
| send(esc 45B char+140B X X Y Y); | 1a1a1 |
| <40B: send(esc 41B[/45B] char+140B [X X Y Y]); | 1a1b |
| ENDCASE: send(char) | 1a1c |
| ELSE | 1ь |
| BEGIN | 1ь1 |
| IF mouse button input THEN send(esc 45B buttons+100B X X Y); | 1ь2 |
| IF keyset input THEN send(CASE keyset OF | 1b3 |
| IN [1,32]: keyset + 140B | 1b3a |
| =33B: 54B | 1ь3ь |
| =34B: 56B | 1b3c |
| =35B: 73B | 1b3d |
| =36B: 77B | 1b3e |
| =37B: 40B); | 1b3f |
| END; | 164 |
| WHAT THE USER PROGRAM SEES IN BIG CHARACTER INPUT MODE | 2 3 |
| IF keyboard input THEN char | 3a |
| ELSE | Зъ |
| BEGIN | 3ь1 |
| IF mouse button and keyset/keyboard for known case shifts | 3b2 |

KEV 5-FEB-73 15:33 14301

final(?) imlac protocol

| | (000, 100, 010, 111) | THEN appropriate translation | 3b2a |
|-----|-----------------------------|---|----------------|
| IF | mouse button and keys | et for unknown case shifts THEN | 3ь3 |
| | BEGIN | | 3b3a |
| | | of unknown caseshift is struck then receive the following two | |
| | character sequence (o | ne character for each bin): | 3ь3ь |
| | (200B+mouse button | s) (keyset+140B / keyborad char) | 3b3b1 |
| | the user program will | ters of the same unknown caseshift, see only the second of these two | |
| | characters, i.e. | | 3b3c |
| | (keyset+140B / key | borad char) | 3b3c1 |
| | transition from an un | nown caseshift, i.e., at the known caseshift to a known setting | |
| | of the mouse buttons, sent: | one eight-bit character will be | 3b3d |
| | | | |
| | 200B | | 3b3d1 |
| IF | mouse button(s) down | and up witout any intervening | |
| | lng | | 364 |
| | THEN appropriate char | | 3b4a |
| | mouse buttons | char sent if no intervening typing | 3b4a1 |
| | 001 | †D (command accept) | 3b4a2 |
| | 010 | ↑X (command delete) | 3b4a3 |
| | 011 | ↑B (center dot) | 3b4a4 |
| | 100 | <pre>†A (backspace char)</pre> | 3b4a5 |
| | 101 | altmode | 3b4a6 |
| | 110 | tw (backspace word) | 3b4a7 |
| | 111 mechanism) | nothing is sent (this is an escape | 3 b 4a8 |
| END | | | 3b5 |

2

3d

final(?) imlac protocol

NOTES:

| the second s | | 1.000 | the second s | 2418 - C | | | |
|--|-----|-------|--|-----------|----------|------|-----|
| coordinates | are | only | available | through a | separate | isvs | 3d1 |

final(?) imlac protocol

(J14301) 5-FEB-73 15:33; Title: Author(s): Victor, Kenneth E. (Ken)/KEV; Distribution: Ferguson, Ferg R., Wallace, Donald C. (Smokey), Irby, H. Charles, Deutsch, L. Peter, Andrews, Don I./wrf dcw chi lpd dia ; Sub-Collections: SRI-ARC; Clerk: KEV; Origin: <VICTOR>MORE-ON-IMLAC-PROTOCOL.NLS;5, 5-FEB-73 15:29 KEV ;

1

to clear up a few things...

Hi Dave-- My NETREF looks the way it does because that is how is was entered in the online NIC version. From which it was lifted directly. It is very verbose because I have not had time to pare it down yet. Part of this is laziness, but mostly it is lack of time. I have all my time taken up now with putting the FTP documents in order. I hope to finish that early this week and then will plunge headlong into NETREF. I can only handle one big project at a time. But I promise I will catch up. I have no strong feelings about upper or lower case except that certain sites, Multics is a big example, diferentiate between the two. For them I have to use lowercase. I guess otherwise it would be easier for me to change since I have done much less. Will take care of it soon. to clear up a few things ...

(J14302) 5-FEB-73 6:34; Title: Author(s): Neigus, Nancy J./NJN; Distribution: Crocker, David H./DHC; Sub-Collections: NIC; Clerk: NJN;

1

MCS-8 assembler?

We understand that an assembler and simulator (written in Fortran) exist for the MCS-8 micro-computer. We would appreciate any information regarding the availability of this software. Please respond by contacting Roland F. Bryan (Ident=RFB) at UCSB.

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MCS-8 assembler?

(J14303) 6-FEB-73 15:42; Title: Author(s): Stoughton, Ronald M./RNS; Distribution: Martin, Reg E., Leichner, Gene, Falk, Gil, Iseli, John, Donnelley, Jed E., Kantrowitz, William, Wolfberg, Michael S., Feinroth, Yeshiah S., Hurt, James, Hearn, Anthony C., Stein, James H., Shoshani, Arie, Harslem, Eric F., Metcalfe, Robert M. (Bob), Reussow, Bradley A., Reins, E. R. (Dick), Kadunce, Daniel L., McCutchen, Samuel P., Petregal, George N., Madden, James M., Young, Michael B., Padlipsky, Michael A., Stevenson, Schuyler, Deutsch, L. Peter, Davidson, John, O'Sullivan, Thomas, Seroussi, Sol F., Bradner, Scott, Thomas, Robert H., Thomas, John C., Romanelli, Michael J., Stoughton, Ronald M., Owen, A. D. (Buz), Fink, Robert L., Meir, Jaacov, North, Jeanne B., Crocker, Steve D., Lawrence, Thomas F., McConnell, John W., Ollikainen, Ari A. J., White, James E. (Jim), Hathaway, A. Wayne, Foulk, Patrick W., Winter, Richard A., Van Zoeren, Harold R., McKenzie, Alex A., Winett, Joel M., Bhushan, Abhay K., Pyke, Thomas N., Wilber, B. Michael, Feigenbaum, Edward A., Braden, Robert T., Pepin, James M., Wessler, Barry D., Melvin, John T., Bryan, Roland F./NLG RFB; Sub-Collections: NIC NLG; Clerk: RMS;

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Imware

UCSB is interested in obtaining information and/or documentation regarding Imlac assemblers which are accessible via the Network. Information regarding Network sites who maintain a library of Imlac programs which can be loaded via the Net would also be of interest. Names of knowledgeble persons whom I can bug at some later time would suffice. Please respond by contacting Ron Stoughton (Ident=RMS) at UCSB.

1

Imware

(J14304) 6-FEB-73 16:11; Title: Author(s): Stoughton, Ronald M./RMS; Distribution: Wallace, Donald C. (Smokey), Stone, Duane L., North, Jeanne B., Deutsch, L. Peter, Cotton, Ira W., Bouknight, W. Jack, Crocker, Steve D., Irby, H. Charles, Meir, Jaacov, Licklider, J. C. R., McConnell, John W., Metcalfe, Robert M. (Bob), Meyer, Edwin W., Michener, James C., Moorer, James A., Postel, Jonathan B., Pogran, Ken, Stoughton, Ronald M./IIG; Sub-Collections: NIC IIG; Clerk: RMS;

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IMPDIAG

Buz

I happened to wonder if you want the source for IMPDIAG? I suppose you could extract it from the assembly listing with alot of pain. If you need the source let me know and I will stick it in the mail pronto. IMPDIAG

(J14305) 6-FEB-73 17:12; Title: Author(s): Stoughton, Ronald M./RMS; Distribution: Owen, A. D. (Buz)/ADO; Sub-Collections: NIC; Clerk: RMS; The Rzepka Discrepancy

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The Rzepka Discrepancy

Thank you for pointing out the discrepancy concerning Rzekpa. You are correct, WER has been using the system. What happened is that he, along with Bethke and Lamonica, has been using account #1 (looking at just the 21-27 stats). Before you called it to my attention, I just assumed that all RADC users used #30. There are two ways we can deal with this problem, depending on whether they type in "1" as an account number or nothing and get it by default. If the problem is the former, then they should rest with the default number, 30. Otherwise, I suggest that they, along with anyone else affected by this problem, type account #30 until we can change default numbers on this end. Please inform me as to which users require this change. Barring the unforseeable. the statistics you receive from now on should be complete, Regarding your second question, usage is charged to the username and account number logged in under, not connected to. Pardon the inconvenience. -bah

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The Rzepka Discrepancy

(J14306) 6-FEB-73 20:35; Title: Author(s): Hardeman, Beauregard A./BAH ; Distribution: Stone, Duane L., Hardeman, Beauregard A./DLS BAH ; Sub-Collections: RADC ; Clerk: BAH ;

This is a response to a note concerning partial copies by Charles Irby. (14289) The idea of the proposed integrated partial scheme is rejected.

A NOTE ON FILES AND THEIR PARTIAL COPIES

Files in the NLS system provide users a means of segmenting the information data base. The association of a logical collection of related information with a definable physical container is a historical hangover. Clearly we could envision a system in which all of the data was contained in a single physical container and was logically segmented through the use of links.

I think there is a predictable trend to defining a set of logically related data in some way other than a physical file container. Already we see the use of links in one file to give us access to other files, and plans are under way to make this connection optionally transparent. The problems associated with guaranteeing the integrity of the data base across access and editing operation is more pevasive than the partial copy issue for a single file. The following observations seem relevant.

1) A logical data set may well include portions of any number of physical data files.

2) The ability to read the logical data set must be provided even though it may be undergoing local modification.

3) The ability to locally modify the logical data set must be provided even though the data set may be currently being read by some other user.

4) The ability for two users to simultaneously modify the same local region of the data set is undesirable.

From an implementation point of view it seems appropriate to define a local region of a data set as the real records contained in a single physical file (or subfile if they exist). Subfiles could be created by the file system to invisibly partition large files into more managably sized containers.

It seems apparent from a consideration of the above observations that the integrated P.C. ideas proposed by IRBY (see -- 14289) and myself, no longer seem tenable. I think we would seriously restrict our capabilities with respect to providing support for large, integrated information data bases.

1 a

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1b

1b1

1b2

163

1b4

1c

1d

Integrated partial copies as proposed in 14289 have two serious drawbacks:

1) Files being read by any user are unavailable for modification.

2) Files being modified are unavailable for reading.

These drawbacks are insignificant if we consider a private data base, created, accessed, and maintained by and for a single user. If we consider the development and maintainence of large data bases which may be accessed/modified by a large number of persons then the drawbacks become prohibitive. The suggested integrated partial copy mechanism effectively destroys the capability for collaborative dialogue. I think this price is too great and recommend abandoning the proposed integrated partial copy scheme.

1f

1e

1e1

1e2

(J14307) 6-FEB-73 9:12; Title: Author(s): Dornbush, Charles F./CFD; Distribution: Irby, H. Charles, Paxton, William H., Andrews, Don I., Wallace, Donald C. (Smokey)/CHI WHP DIA DCW; Sub-Collections: SRI-ARC; Clerk: CFD;

Our Current Thinking on EXEC Level Mail Sending and Reading

We know that Bob Kahn and others are interested in this subject and are writing an RFC discussing these issues and inviting all interested parties to attend a meeting to be held here at SRI in a few of weeks to discuss the topic more fully.

Cur Current Thinking on EXEC Level Mail Sending and Reading

Our current thinking about EXEC level mail sending and reading

Sending mail

We are reluctant to build another mail sending subsystem since there are already several adaquate such subsystems around the Net. We are trying instead to find ways to extend these already available subsystems in the following two areas:

use of short simple identification for groups of people (recipients)

Recording of important messages for later referencing and retrieval.

Our Ident system and Journal system are attempts to provide such facilities for ourselves, and, although we realize that they are not all that they should be, we feel that the network community would profit from their more general availability. Consequently, we are looking seriously into modifying the File Transfer (Mail) Protocol to allow Idents as valid directory names and to allow some mechanism (as yet unspecified -- but utilizing the directory name feild) for users to indicate that a message is intended for the Journal (to be recorded and given a unique identification for later referencing and retrieval).

When mail arrives at our site and has as its recipient an Ident and is not to be recorded, the Ident will be expanded into the username[@hostname] format of SNDMSG and will be delivered in the normal SNDMSG manner (using the background process MAILER and an "unsent mail" file). If the message is to be recorded, it will be transformed into an NLS file and delivered as usual. Also, we are going to add an additional Delivery attribute to Ident entries called NET delivery. If an individual has this attribute set (he can have any or all delivery attributes set) the Journal will deliver his mail through the net via the SNDMSG mechanisms just described.

by the way, we may set up a directory for the unsent mail files so that MAILER does not have to do a gtjfn on the whole file system. Are there reasons why this is a bad idea?

Reading mail at the EXEC level

1a2

1a3

1a3a

1b

1

1a

1a1

1a1a

1a1b

Our Current Thinking on EXEC Level Mail Sending and Reading

At each site where there is a mail sending system there is also a mail reading system. We have no intention of modifying any of these except possibly the one that runs on our system. On our system we would like to be able to read SNDMSG and JOURNAL mail both from the same READMAIL subsystem. We feel it important to be able to

read previously sent, recorded mail by specifying its unique identification

have both automatic and interactive mail reading modes, where the automatic mode simply prints all of your current mail (citations --author and title-- or full text) and the interactive mode allows one to read the items one by one and optionally delete them after reading them.

in either mode, deletions should be explicit -- the system should not accumulate them forever or delete them automatically.

The current READMAIL subsystem available on TENEX may in fact be a good way to do things, provided the user has some way of deleting old mail that he is sure he will not want later and he can access the Journal through it. My (CHI) current thinking is that a more sophistocated NLS Print Journal facility should be made available as a sub-fork which READMAIL can utilize.

Thank you for your interest and responses. -- Charles Irby.

1b1a

1b1

1b1b

1b1c

162

Our Current Thinking on EXEC Level Mail Sending and Reading

(J14308) 6-FEB-73 11:38; Title: Author(s): Irby, H. Charles/CHI; Distribution: Neigus, Nancy J., Kudlick, Michael D., Engelbart, Douglas C., Watson, Richard W., Norton, James C., White, James E. (Jim), Hopper, J. D., Wallace, Donald C. (Smokey), Victor, Kenneth E. (Ken), White, James E. (Jim), Dornbush, Charles F., Michael, Elizabeth K., Vallee, Jacques F., Mitchell, James G., Deutsch, L. Peter, Kaye, Diane S., Andrews, Don I., Bass, Walt, Hopper, J. D., Irby, H. Charles, Lehtman, Harvey G., Auerbach, Marilyn F., Van Nouhuys, Dirk H., Kahn, Robert E./NJN MDK DCE RWW JCN JEW JDH DCW NPG MFA DVN REK2; Sub-Collections: SRI-ARC NPG; Clerk: CHI;

Origin: <IRBY>MSG.NLS;3, 6-FEB-73 11:33 CHI ;

Frustrations and other bugs

Hi. I have had a few problems using your system. One night I took one of our portable terminals home with me so I could work on an rfc via the tip. Well, after trying various times to connect to you and getting host dead, I decided to call your free zenith number and find out if you would be up that evening at all or whether you would be down all night for hardware or software maintenance. I called operator and asked for Zenith 90740 in Palo Alto. She called another operator and said she had a call to that number from Culver city (I don't live in Culver city but my telephone company is there). The other operator informed her that she could not accept the call from culver city but only from west los angeles (which is where I actually live). Thus, I found that your zenith number was totally useless. I then called UCLA to see if there was some other number I should use but they couldn't find any for culver city either. Then I had them call the number for me. They got the answering service who didn't have any information and couldn't get ahold of anybody. Usefull number you've got Why don't you get an 800 number (its free from there. anywhere in the country and you can dial it direct?)

I have had very little success in getting your system to allow me to insert upper-lower case on an upper case device. It used to work just by typing "NO LOWERCASE" to the exec and when NLS asked for device, answer 33. Now NLS no longer asks for device. So I told the exec I was a 33 with terminal type is command. That didn't help either. Now someone here tells me that I have to do something in "execute viewchange". Oh what fun.

Have you ever tryed getting the formfeed character over the net from NLS? It won't send it. Even typing "formfeed" to the exec doesn't help. The only way I have been able to get it is to use"Output device printer", change the file name, then send this file to me using sendprint. Another kludge rides again.

Something changed recently. Maybe if I hunt through folklore I will find out about it but it sounds like a bug. I have changed my control characters to control-d again (because I was used to it that way and liked it better anyway) and echo as . However, just recently when I type print branch control-d wm control-d, , it echoes as "Print Branch wm" and doesn't print the second like it used to. Bug or feature? 1

1 a

1c

1b

1d

Frustrations and other bugs

(J14309) 6-FEB-73 15:43; Title: Author(s): Kline, Chuck S./CSK; Distribution: Kaye, Diane S., Lehtman, Harvey G., Irby, H. Charles/BUGS; Sub-Collections: NIC BUGS; Clerk: CSK;
DCE 6-FEB-73 15:56 14310 Reporting a duplicated Journal entry: 12446 and 14266 are the same items

DCE 6-FEB-73 15:56 14310

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Reporting a duplicated Journal entry: 12446 and 14266 are the same items

Both items (12446 and 14266) are the Abstract that I submitted for the paper entitled "Augmenting the Knowledge Workshop", to be delivered at the Jun 73 National Computer Conference in New York City.

So, for one thing, this is to report the duplication to our readership. I lost track and entered it a second time.

And, for another thing, it is to ask those concerned with the problems of dialogue, biblic referencing, operations, etc. if there is any articular procedure that should be followed when such accidents happen?

DCE 6-FEB-73 15:56 14310 Reporting a duplicated Journal entry: 12446 and 14266 are the same items

(J14310) 6-FEB-73 15:56; Title: Author(s): Engelbart, Douglas C./DCE ; Distribution: Norton, James C., Watson, Richard W., Hopper, J. D., North, Jeanne B., Irby, H. Charles, Kudlick, Michael D./jcn rww jdh jbn chi mdk ; Sub-Collections: SRI-ARC; Clerk: DCE ;

14311

JCN 7 FEB 73 3:38AM xxxxx Trial Business Card for JCN

Dean: What can you do for me in the way of making a COM trial "business card" such as the following?

1

I think the dimensions are $2^n \ge 3 \frac{1}{2^n}$ - enlarged here to fit type.

James C. Norton < size 10 TR? Assistant Director < size 6 NG? Augmentation Research Center < size 6 NG? Stanford Research Institute < size 6 NG? Menlo Park, California 94025 < size 6 NG? PHONE: AREA 415 326-6200 < ??

 1p

 Note different size types.. I don't know much about it, but

 the above is a try.
 1q

 Let me know if you have any questions.
 1r

 If this is not a big job, can you slip it into an upcoming
 1s

 COM order as a test? Thanks.
 1s

JCN 7 FEB 73 3:38AM XXXXX Trial Business Card for JCN

(J14311) 6-FEB-73 17:44; Title: Author(s): Norton, James C./JCN; Distribution: Neyer, N. Dean/ndm ; Sub-Collections: SRI-ARC; Clerk: JCN; Origin: <NORTON>CARD.NLS;1, 6-FEB-73 17:39 JCN ;. ;

On Making NLS, the Journal, and the Network the Best of Friends

Mike-- This is the information you asked for, I think. It's material for the RFC we've talked about as well. Critiques, etc. gratefully accepted. --Jim

On Making NLS, the Journal, and the Network the Best of Friends

The discussion that follows describes proposals for changes or additions to SRI-ARC software which are being made to make some major NIC services more readly accessible to NIC users.

The common thrust behind all of the developmental efforts described here is one of attempting to minimize the amount of exposure (to SRI-ARC, and, specifically, to NLS) required of the user before he can effectively exploit basic NIC services.

Although we believe that NLS is a powerful tool that can be used effectively in all of the areas discussed here, we also believe that the user shouldn't be FORCED to become adept at the use of NLS before he can exploit many of the services the NIC provides.

It may be noted that it is the existence of the Network-standard, File Transfer Protocol which makes the developments to be described doable.

This discussion treats four major areas:

(1) Journal Delivery -- providing a mechanism by which the Net can deliver Journal mail to a user directly, relieving him of the responsibility of logging into SRI-ARC and reading it via NLS, and of the delay resulting from reliance upon the Postal Service.

(2) Journal Submission -- providing a mechanism by which the user can both create and submit a Journal article in the comfort (and familiarity) of his own host, without the necessity of having to log into SRI-ARC and use NLS to perform those tasks.

(3) Retrieval of NLS, Tree-structured Files -- providing a mechanism by which the user can retrieve VIEWS of NLS, tree-structured files (be they Journal articles, Functional Documents, or private files) in a form useful to him in his host (i.e., as sequential files -- for use with his text editor or output to his line printer) without the necessity of having to log into SRI-ARC and use NLS to do it.

(4) Creation of NLS, Tree-structured Files -- providing a mechanism by which the user can create NLS, tree-structured files from sequential files created within his host, without the necessity of having to log into SRI-ARC and use NLS to do it.

Journal Delivery through the Net

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3a

3b

3d

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3c

On Making NLS, the Journal, and the Network the Best of Friends

| How it will look to the User | 4a |
|--|--------|
| Each user formally known to the NIC can currently select for himself individually the manner(s) in which he is to receive delivery of Journal mail addressed to him. | 4a1 |
| The two existing delivery methods, from which he can select one or both, are: | 4a1a |
| (1) Online an entry containing the text of the mail or, for longer items, a citation to it is made in the user's initial file, which resides in his directory at SRI-ARC. | 4a1a1 |
| (2) Hardcopy the text of the mail is sent to the user (i.e., to an address of his choosing) via the U.S. Postal Service. | 4a1a2 |
| A third method will soon be available: | 4a1b |
| (3) Network the text of the mail will be transmitted to the user (i.e., to a host of his choosing) via the Net using the mail mechanism within the Network-standard, File Transfer Protocol (FTP). It will be deposited there under a name pre-selected by the user. | 4a1b1 |
| If a user selects to receive Journal delivery via the Net, Journal articles that he himself authors will be acknowledged to him by the same mechanism. | 4a1b1a |
| The NIC will attempt, as far as is reasonably possible, to deliver mail and acknowledgments via the Net despite periods when the receiving host is disconnected from the Net. A number of delivery attempts spanning a number of days (or longer) will be made before delivery is abandoned as hopeless. | 4a1b1b |
| How it will be implemented | 4b |
| Each user in the Ident System currently has an attribute which describes the mechanism(s) by which he receives Journal articles addressed to him. | 4ь1 |
| This attribute can currently have the value 'Online' and/or 'Hardcopy'. | 4b1a |

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In the Ident System is stored the user's SRI-ARC directory name, for online delivery, and his mailing address, for hardcopy delivery. 4b1a1 A third option will be 'Network'. 4b1b In the Ident System will be stored the name by which the user is known at the remote host; his host address is already stored there. 4b1b1 A fork called MAILER which runs under SYSJOB and which now cooperates with the SNDMSG subsystem to deliver mail through the Net will be re-written to serve as agent for delivering Journal mail (as well as SNDMSG mail). 4b2 A new directory called <OUTGOING-MAIL> will be created at SRI-ARC to serve as the point of interface between MAILER and the Journal's online-delivery process, which is run by the operator periodically. 4b2a Whenever that process delivers a Journal article, some or all of whose addressees have 'Network' as a delivery attribute, it will create a sequential file (with extension "SEND") in <OUTCOING-MAIL> containing: 4b2b (1) A header with such information as the author's ident, the article's catalog number, the date of its 4b2b1 submission, and its title. (2) For each addressee to receive Network delivery: 4b2b2 (a) His host address, and 4b2b2a (b) The name by which he is known at that host. 4b2b2b(3) If delivery is to be acknowledged via the Net, a host address and user name designating the author of the article. 4b2b3 (4) The text of the article (whether submitted as a message or file). 4b2b4 Once the Journal has deposited the file in <OUTGOING-MAIL>, MAILER will assume responsibility for actual delivery through the Net. 4b2c MAILER will periodically (say once every five minutes) scan (OUTGOING-MAIL) for 'SEND' files. 4b2c1

4b2c2

4b2c2a

4b2c2b

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For each addressee in each "SEND" file, MAILER will periodically attempt to establish a Network connection to the server FTP process at the appropriate host.

It unsuccessful on its first attempt, MAILER will reattempt connection at a later time, maintaining a count of the number of tries which have failed, and eventually giving up the delivery attempt if the host is never up and responsive.

Once a connection has been established, MAILER will present the user name to the server process at the other end, and, if it's known to that process, proceed to transmit the text of the mail through the Net.

When all addressees have been dealt with, successfully or otherwise, MAILER will delete and expunge the 'SEND' file, and build an acknowledgment file containing the outcome of the delivery attempt for each of the addressees (whether or not it was delivered at all, the date and time it was delivered, how many delivery attempts were required, etc.)

MAILER will then acknowledge delivery to the sender by:

(a) Sending the acknowledgment file to the sender if acknowledgment was to be via the Net.

4b2c2d1

4b2c2c

4b2c2d

All MAILER has to do to make this happen is give the acknowledgment file an extension of "SEND", and he himself will see to its delivery by the very same mechanism just described. 4b2c2d1a

 (b) Allowing the Journal delivery process to acknowledge delivery if acknowledgment was to be made in the sender's initial file.
 4b2c2d2

To make this happen, MAILER gives the acknowledgment file an extension of 'SENT'.

4b2c2d2a The Journal delivery process then, the next time it is run, scans <OUTGOING-MAIL> for 'SENT' files, and for each one it finds,

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deposits the acknowledgment information in the AUTHOR branch of the sender's initial 4b2c2d2b file. Journal Submission from the Net 5 How it will look to the User 5a A user will be able to submit a Journal article via the mail facility within FTP. In doing so so he will employ whatever front-end process has been implemented in his host (for TENEX users, this front-end is the SNDMSG subsystem). 5a1 He will direct his FTP user process to deliver the text of the article as mail to SRI-ARC, specifying a user name of the form: 5a2 JOURNAL/ident-1, ident-2, ... 5a2a SRI-ARC's server FTP process will verify the idents and, if it finds them correct, accept the mail. 5a3 The user may prepare the text of the article by whatever mechanism his host makes available to him, presumably with his text editor. 5a4 5b How it will be implemented SRI-ARC's server FTP process currently delivers mail sent to it by appending it to the addressee's MESSAGE.TXT file; it therefore requires that the user name specified by the remote host be a directory name. 5b1 SRI-ARC's server FTP process will be modified to intercept user names which begin with the character string 'JOURNAL/', and interpret the remainder of the user name character string as a list of idents. 5b2 Before accepting the mail, the server process will see to it that each ident is verified by NLS, which it will map into an inferior fork and start up at an auxiliary entry point. 5b2a The server process will then accept the mail, build from it a sequential file, and pass the file to NLS (running 5b2b again in an inferior fork) for delivery. Creating and Retrieving NLS, tree-structured files from the Net 6

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| ₩b | at kinds of conversions will be available | 6a |
|----|---|-------|
| | | |
| | The user will be able to select from a family of algorithms | |
| | for mapping NLS tree-structured files into and out of the | |
| | more conventional sequential, NVT files supported by FTP. | |
| | The following sorts of mappings will probably be supported: | 6a1 |
| | (1) One in which lines of text (delimited by CR LF) in | |
| | the sequential file are mapped into and out of NLS | |
| | statements, with no thought given to structure: | 6a1a |
| | | |
| | All statements in an NLS file created by this mapping | |
| | would be at the same level in the tree, and when | |
| | serving as the source in such a transformation, an | |
| | NLS file would be treated as if all its statements | |
| | were at the same level. | 6a1a1 |
| | (2) One in which paragraphs (delimited by TAB, say) in | |
| | the sequential file are mapped into and out of NLS | |
| | statements, with no thought given to structure. | 6a1b |
| | | |
| | A variation of this mapping might employ successive | |
| | TABs to denote the depth of the statement in the NLS | |
| | tree. | 6a1b1 |
| | | |
| | (3) That of the Output Processor | 6a1c |
| | | |
| | This mapping would only makes sense in mapping NLS | |
| | files into sequential files. | 6a1c1 |
| | | |
| | (4) A mapping in which the notion of an Input Directive | |
| | is defined to allow the user to explicitly specify the | |
| | structure of the NLS file he is creating, and to allow | |
| | the user to record unambiguously in sequential form the | |
| | structure of an NLS file. | 6a1d |
| | | |
| | This mapping would provide a mechanism by which a | |
| | user could archive an NLS file (of his own) at | |
| | another host, and retrieve it with no loss of | |
| | structural information. | 6a1d1 |
| | Since the NIC can probably never realistically expect to | |
| | implement all of the conversion algorithms that are apt to | |
| | prove useful to users, a mechanism will be provided to | |
| | allow the user to supply an L10 user program to be used by | |
| | NLS in performing the conversion. | 6a2 |
| | | |
| | A procedural mechanism will be provided by which those | |
| | | |

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user-written conversion programs which are of potential use to the NIC user community at large can be installed as system procedures and documented, making them more widely available, and making them accessible in connection with file transfers initiated by the user's FTP user process (see next section), as well as those initiated by user command from within NLS.

NOTE: There is currently no means by which L10 user programs can be saved in compiled form. Thus, to be used by SRI-ARC's server FTP process, they would have to be compiled each time invoked.

When the user is logged into SRI-ARC and in NLS

Commands will be provided within NLS by which the user can: 6b1

(1) Retrieve a sequential file (specified by pathname) from a server FTP process (specified by host name), give it structure by subjecting it to one of the mapping algorithms provided by the NIC or supplied by the user, and insert it at a specified point in the currently loaded NLS file.

(2) Deposit a specified branch (as modified by prevailing viewspecs) of the currently loaded NLS file as a file (specified by pathname) in a server FTP process (specified by host name), first preserving its structure by subjecting it to one of the mapping algorithms provided by the NIC or supplied by the user.

When the user is using his FTP user pocess to perform the transfer

How it will look to the User

A mechanism will be provided within SRI-ARC's server FTP process by which the user can, with the help of his host's user FTP process:

(1) Retrieve any VIEW (specified by viewspecs) of any branch (specified by name or number) of any NLS file within the NIC's file system to which he has legal access (including, for example, Journal articles, functional documents, and files created by the user himself), first preserving its structure by subjecting it to one of the mapping algorithms provided by the NIC.

6c1a1

6a2a

6a2a1

6b

6b1a

6b1b

6c1

6c

6c1a

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(2) Deposit a file in the SRI-ARC file system, in any directory to which the user has legal access (normally just his own), giving it structure by subjecting it to one of the mapping algorithms 6cla2 provided by the NIC. Application of the conversion algorithm will be implicit in any file transfer requested of SRI-ARC's server FTP process, provided that the pathname specified by the user contains a field of the form: 6c1b :X NLS/algorithm-parameters 6c1b1 'Algorithm' specifies the type of conversion desired. 6c1b1a 'Parameters' inludes such things as statement 6c1b1b name, viewspecs, etc. How it will be implemented 6c2 SRI-ARC's server FTP process will be modified to parse every pathname specified by the user in the context of a RETRIEVE or STORE request for a field of the form: 6c2a 6c2a1 :X module/parameters It will expect 'module' to be the name of a SAV file in a specific directory. It will create an inferior fork, map the SAV file into it, and start it at its primary entry point, passing it a JFN for the file being retrieved or stored, an indication of which operation is 6c2b being performed, and the 'parameters'.

JEW 6-FEB-73 14:44 14312

6c2b1

The conversion module will be dispatched after the file has been assembled at SRI-ARC in a STORE operation, and before the file is transmitted through the Net in a RETRIEVE operation.

The module will return with a message indicating the outcome of the conversion (which the FTP server process will relay to the user over the Network connection), an indication of the outcome of the conversion (which the server process will use as a basis for deciding whether or not to abort the transfer), and a JFN for the file which contains the result of the conversion (which the server process

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will substitute for that of the original file in completing the transfer). 6c2b2

JEW 6-FEB-73 14:44 14312 On Making NLS, the Journal, and the Network the Best of Friends

(J14312) 6-FEE-73 14:44; Title: Author(s): White, James E. (Jim)/JEW; Distribution: Kudlick, Michael D., Watson, Richard W., Irby, H. Charles, Wallace, Donald C. (Smokey), Hopper, J. D., Victor, Kenneth E. (Ken)/mdk rww chi dcw jdh kev ; Sub-Collections: SRI-ARC; Clerk: JEW;

Origin: <WHITE>PLANS.NLS;8, 5-FEB-73 14:12 JEW ;

JEW 6-FEB-73 17:27 14313

Response to (NIC -- 14291,) by DHC -- SMFS unsupported filename

Dave-- The problem you've run into has been encountered already by JBP (NIC -- 14260,) and EHF (NIC -- 13730,). The restriction you've run up against is documented in RFC 409, (NIC -- 12401,), Section II, Item 2; but I guess it's not very clearly explained there.

The problem is that the character set (A-Z, a-z, 0-9, and SP) from which filenames can be built at UCSB is more restrictive than that allowed for TENEX filenames. Hence, if you attempt to talk about any file at UCSB whose directory, name, or extension contains characters other than these, you get the diagnostic 'unsupported filename'.

From the data you've given me (NIC -- 14291,), it's apparently the directory name which violates the restriction, and, more likely than not, it's a dash which appears there.

A simple (but admittedly un-elegant) solution is to take advantage of the opportunity that SMFS gives you (when it prompts "(store as file)" in a MOVE or COPY command) to store the file at UCSB under a name that's different than the one by which it's known in the TENEX file system. If your problem is, in fact, the directory name, you might store the file at UCSB under a directory whose name is your TENEX directory less the dash. If your directory were <MUMBO-JUMBO>, for example, that would go:

C[opy]
[(to/from UCSB)] T[o]
[(file)] MY.FILE CR % directory defaults to <MUMBO-JUMBO> here
%
[(store as file)] <MUMBOJUMBO>MY.FILE CR
[(create/replace)] C[reate]

You must, of course, remember what you've done when you retrieve the file, and use <MUMBOJUMBO>MY.FILE again, this time when it prompts '(file)'.

This restriction has proved inconvenient so often already, with the character dash in particular, that I've asked UCSB to change their SMFS implementation to allow '-' as part of their character set. I know for a fact that such a change is trivial to make at UCSB, and as soon as they find time, I'm sure they'll make it. When that happens, I'll modify the SMFS subsystem to allow dashes (an equally trivial modification).

In the mean time, I'll put a comment in the SMFS NEWS facility, pointing out the difficulty and mentioning the modification that's in the works. 2

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JEW 6-FEB-73 17:27 14313

Response to (NIC -- 14291,) by DHC -- SMFS unsupported filename

I do appreciate this kind of dialogue, and will always try to respond to questions or criticisms. Thanks. --Jim

JEW 6-FEB-73 17:27 14313 Response to (NIC -- 14291,) by DHC -- SMFS unsupported filename

(J14313) 6-FEB-73 17:27; Title: Author(s): White, James E. (Jim)/JEW; Distribution: Crocker, David H., Postel, Jonathan B., Forman, Ernest H., Krilanovich, Mark C., Stoughton, Ronald M./dhc jbp ehf mck rms ; Sub-Collections: SRI-ARC; Clerk: JEW; Origin: <WHITE>USF.NLS;3, 6-FEB-73 17:18 JEW ;