

LESSON A7: FETCHING A NEW SYSOUT ON A DANDELION

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Objective: This document provides a recipe for the installation of a new copy of an Xerox Lisp "Sysout" (i.e., the main Xerox Lisp software), on a Daybreak which resides on a local network. You will be retrieving a new copy of the Xerox Lisp software from a network-based file. This document does not tell you how to load a new sysout from floppy disks.

Discussion:

The Xerox Lisp software machine uses various resources, primary memory in particular, during its life cycle. Not all of these resources are relinquished and deallocated when no longer needed, and the machine tends to "fill up" after prolonged use. To avoid problems when running low on the available memory that Xerox Lisp will want to use, the software on the machine (i.e. sysout) should be periodically restored to its prior initial state. This is accomplished by loading into the computer a fresh copy of the software, which reflects a full complement of the resources that are supposed to be available. The frequency of such need varies according to use: busy programmers may require a new copy daily, while casual users using only the mail and editing facilities may survive several weeks or more. The need to load a new copy of the sysout may be heralded by seeing such error messages as "ARRAYS FULL". Also, when the system starts to get sluggish and it takes longer than usual for processes to complete this is generally an indication that a new sysout is needed.

Sometimes your machine may crash with an error that is unrecoverable until you get a new sysout. If you get a 0217, 1185 or some other error in the cursor, please refer to Lesson L5. If you are really stuck just get a new sysout.

The following assumes you have a working Dandelion that has an Xerox Lisp system installed and running. Additionally, this machine should be connected to an Ethernet and able to access the appropriate file server designated for your use. When you have completed the sequence of steps listed you should have a fresh copy of the Xerox Lisp sysout running and ready for service. All of your local disk files and permanently stored files on file servers will remain unchanged. Your personal additions may not change, unless you have previously modified your "user init file", which directs Xerox Lisp to customize your machine according to your individual specifications. (See Lesson H for more on Init files.)

In the following, comments are in *Italicized print*; you type the things that are underlined, and normal print represents statements issued by the computer.

Procedure:

1. Saving your work and running the Lisp Installer

IF THE MACHINE IS ALREADY ON and running Xerox Lisp, first save your work by doing the following: put any TEdit or Sketch files that you have made changes to, save any functions that you have defined, close any mail folders that you have open. Now logout by doing the following:

(LOGOUT)

IF THE MACHINE IS OFF, turn it on by moving the rocker switch on the main unit front panel toward the 1 position.

After a few seconds a number of icons will appear which will correspond with the function keys. Press the F1 key immediately followed by the 0 (zero) key. Do not hold both keys down at once.

This will look for and boot from a specific Mesa boot file on your local hard disk.

The Daybreak will come alive as a Mesa machine (i.e. running under the Pilot operating system).

2. Installer Version 1.0

Copyright (C) 1984, 1985 by Xerox Corporation. All rights reserved.

Processor = 0AA007B74H = 25200075564B = 2■852■158■324

Memory size = 1536K bytes

Shall I try to find remote scripts? (Y/N): N <CR>

>Online

Drive Name: RD0 <CR>

Pressing the carriage return at this point will bring the rigid disk (RD0) online.

3. Installing a new sysout

There are two choices for installing a new sysout. Since retrieving a new sysout from a file server on the Ethernet can take up to ten minutes, some people stash a fresh copy on

their LispFiles volume to save time. The sysout does take up space, though. If you already have a sysout on your LispFiles volume that you want to use, skip to step 5.

In this step you will actually fetch a new sysout onto the local disk. You will need to know ahead of time exactly which sysout you want and where it is stored. Refer to lesson M1 for a discussion about possible sysouts to load. The sysout is either on an NS file server or an IFS.

First you will open a connection to the file server and then fetch the sysout from that file server.

For a sysout on an NS file server

If the sysout is on an NS file server (e.g. IE:PARC:Xerox) then you need to make sure you are logged in with your NS id (you were previously when connected to Starfile Public).

```
> login  
User: your NS id (e.g. Joe Public:PARC:Xerox) <CR>  
Password: your NS password <CR>
```

```
> open  
connection to: your NS file server (e.g. IE:) <CR>
```

For a sysout on an IFS:

If the sysout is on an IFS (e.g. Phylum or qv) you will first need to login with your Grapevine name.

```
> pup login<CR>  
User: your Grapevine id (e.g. Jones.pa) <CR>  
Password: your Grapevine password <CR>
```

```
> pup open  
connection to: your IFS (e.g. Phylum) <CR>
```

Note: even if you give the name of an IFS that is running, it is possible to get an error returned. If you will get the message "No Route to host" simply execute the pup open command again until you get a connection. Alternatively, if you get the message "connection rejected by host" this means that the file server is very busy. The pup open command will keep trying to make a connection.

4. You now have a connection open to a file server. You want to ask the Installer to fetch the sysout onto a partition on the disk.

> Lisp Sysout Fetch

Logical volume: volume name where you want sysout stored (e.g. Lisp) <CR>

Source: directory on file server where sysout is located (e.g. <Lisp>Lyric>Basics>Full.sysout) <CR>

Expand volume: (answer Y unless you are fetching the sysout to be a fresh Lisp sysout)
Y <CR>

expanding. . . . (unless you said N above)

Shall I make this the physical volume: N <CR>

Fetching a sysout usually takes 5 to 10 minutes.

5. **Copying a fresh lisp sysout:**

If you didn't fetch the sysout into a fresh lisp sysout then go onto step 6. You will now copy the fresh lisp sysout from the partition you fetched it into to the partition that you want to run Lisp in. After that you will expand the destination partition.

> copy vmem

Source volume: your fresh lisp sysout volume (e.g. LispFiles) <CR>

Destination volume: your working lisp partition (e.g. Lisp) <CR>

copying.....done.

> expand volume

Logical volume: your working Lisp partition (e.g. Lisp) <CR>

expanding..... done.

6. **N.B. Unlike a Dandelion, the Daybreak requires that there be Lisp microcode in each volume that you want to run Lisp in.** You must have the right version of Lisp microcode which corresponds with the release of Lisp. For example, to run Lyric, you must use Lyric microcode. The Lisp microcode is available on Phylum, IE:PARC:Xerox and Starfile Public. In the following example, Lisp Lyric microcode will be retrieved from Phylum. Refer to Lesson A6 is Phylum isn't available. **If you are just getting a new sysout and are staying with the same release then continue on to step 7.**

> pup login<CR>

User: your Grapevine id (e.g. Jones.pa) <CR>

Password: your Grapevine password <CR>

> pup open
connection to: Phylum<CR>

> Lisp Microcode Fetch
Logical Volume Name: (the name of the volume e.g. Lisp) <CR>
Source: <Lisp>Lyric>Basics>LispDove.db
Shall I make this the physical volume? N <CR>

7. **Starting Lisp:** *You are now ready to go into Lisp.*

> Start Lisp
Logical volume: your lisp volume (e.g. Lisp) <CR>
Are you sure: Y <CR>

8. The screen will go dark and possibly display an odd pattern on the screen. The cursor will stop on 199 for a number of seconds and finally go to 1186. If the maintenance panel hangs on some other number refer to lesson L5.

As Xerox Lisp looks for and activates different tools, the screen may change slightly. This process will be complete when the Xerox Lisp prompt "1>" returns to the 'TTY' window.

At this point you should now be in possession of a fully functional Xerox Lisp machine, and it is ready for you to resume your work.