

## Inter-Office Memorandum

To	Mesa Users	Date	October 27, 1980
From	Hal Murray, Mark Sapsford	Location	Palo Alto
Subject	<b>Mesa 6.0 Pup and Ftp Update</b>	Organization	SDD/SS/Mesa

# XEROX

Filed on: [Iris]<Mesa>Doc>PupFtp60.bravo (and .press)

This memo outlines changes made in the Mesa Pup and Ftp Packages since the University release of December 20, 1979. This release is essentially a recompilation of the Pup and Ftp packages using Mesa 6.0. As usual, a number of bugs have also been fixed, and minor changes have been made to the interfaces. More complete information is available in the functional specifications stored on <Mesa>Doc> as `PupPackage.press` and `FtpPackage.press`.

### Pup Summary

#### *Changes*

The following changes were made to **Stream**. The procedure types **GetProcedure**, **PutProcedure**, **SetSSTProcedure**, **SendAttentionProcedure**, and **WaitAttentionProcedure** now take a new initial argument **sh: Handle**. In addition, **SendAttentionProcedure** now takes a second argument **byte: Byte** (which is ignored), and **WaitAttentionProcedure** now returns a **Byte** (which should be ignored). As a result of these type redefinitions, the inline procedures **SendAttention** and **WaitAttention** have different calling sequences, and a new return value has been added to **WaitAttention**.

The following changes were made to **PupDefs**. **PupRouterSendThis** no longer returns a **SendReturnCode**. **SendReturnCode** (a TYPE) has been deleted. If the buffer could not be sent, it is discarded.

The arguments to **EnumeratePupAddresses** are now named. The order of the two arguments to **PupAddressLookup** has been reversed. The second argument to **AppendPupAddress** is now a **PupAddress**, instead of a POINTER TO **PupAddress**. Similarly, the argument to **PrintPupAddress** is now a **PupAddress**, instead of a POINTER TO **PupAddress**. The **local: PupSocketID** argument to **PupPktStreamCreate** and **PupByteStreamCreate** has been removed.

#### *Additions*

The procedures **AppendHostName** and **AppendMyName** have been added to **PupDefs**.

**UseAltoChecksumMicrocode** has been added to speed up processing if you are running on an Alto with XMesa in the ROM or an Alto with a 3K RAM. The overflow microcode loaded into the RAM by `RunMesa.run` includes the necessary additions. (Beware if you load your own microcode.)

*Subtle Implementation Changes*

**GetPupAddress** will no longer return an address for a dying net. **EnumeratePupAddresses** will now pass the client supplied procedure addresses on dead or dying nets, but only after processing all the addresses on nets that are reachable. (It used to skip addresses on unreachable nets.)

The byte stream internals have been reworked to eliminate several unpleasant delays while opening and closing connections. It is now possible to open a connection, send a thousand words, and close the connection in less than a second. (Since closing deletes three module instances, it will take longer if there are many active global frames.) A byproduct of this cleanup is that **SendNow** will send an empty **aData** packet to request an acknowledgment even if the previous **SendBlock** happened to end on a convenient packet boundary.

When sending a packet whose destination is the local machine, the Ethernet driver puts a copy on the input queue and acts as though it had sent the packet. It now also copies broadcast packets to the input queue, so clients should check to be sure that their programs will not take undesired actions if they hear their own broadcasts. Packets that are sent to the local machine are now also sent out over the wire; this allows **PeekPup.run** to be used when analyzing timing problems.

*Bug Fixes*

The following change requests are closed by this release:

- 2848 **GetMyName** (actually net address) procedure
- 2906 Slow on Dorado
- 2998 Error strings in **NameConversion**
- 3311 Pup ByteStream close
- 3341 Trivial bug in **PupTypes**
- 3708 **PupNameLookup+PupAddressLookup PupGlitch**
- 4456 Recompile packages to fix long return record bug
- 4552 ByteStream timeout
- 5005 Delays when creating byte stream
- 5093 NameLookup vs dying nets
- 5098 Change priority of interrupt routine in EthernetDriver(s)

**Ftp Summary**

The arguments to the (client supplied) procedure passed to **FTPInventoryDumpFile** have been extended to allow proper processing of create dates. It is now compatible with the procedure passed to **FTPEnumerateFiles**.

The following change requests are closed by this release:

- 2906 Slow on Dorado
- 3584 Ftp vs IFS 1.23
- 3626 Sending mail
- 3664 MTP user: require sender property on **SendMessage**
- 3900 UNWIND from **FTPEnumerate/retrieve**
- 3987 **StringBoundsFault** from **TimeExtras.PacketTimeFromString**
- 4335 **FTPUtilities.TransferBytes**
- 4352 **FTPAltoFile.PreProcessFile** does a blind **ReleaseFile**
- 4444 **FTPInventoryDumpFile** needs create date
- 4456 Recompile packages to fix long return record bug

4499 **FTPTransferFile** doesn't pass through the creation date  
4544 **FTPRetrieve** hangs on a timeout on a "no" mark  
4763 Troubles if forget to call **IdentifyNextRejectedRecipient**  
5152 **TimeExtras.PacketTimeFromString** zone screwup  
5198 Config with server and user things

Distribution:

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