

AmigaMail

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Chapter 1

AmigaMail

1.1 SANA-II Developer Support Package / Changes

There have been no substantive changes from the November 7 Draft for Final Comment and approval. There have been minor clarifications and typographical corrections and a section was added to clarify ARCNET framing.

Since the Fish Disk/'91 DevCon draft of the SANA-II standard, here is a summary list of the important changes:

- Packet type specification has been drastically simplified. The original standard called for a generalized "Packet Magic" which all drivers and protocols had to deal with, even though few people should ever have to worry about the problem. We could also have specified that there are 802.3 SANA-II drivers and that there are ethernet drivers and that if you want 802.3 and ethernet (even if on the same wire) from the same machine, use two ethernet boards. This didn't make sense because we don't anticipate multiple protocols needing to use 802.3 frames nor much encouragement for hardware manufactures to provide special 802.3 drivers. The current solution keeps the standard simple and allows highly efficient implementations, but it does make ethernet drivers a little more complex and does make using 802.3 frames harder.
 - The original SANA-II device driver specification therefore called for drivers to have no internal buffers and to get all buffers from protocols in the form of a data structure called a NetBuff. Hence, all protocols were required to use NetBuffs. This was highly unsatisfactory since most protocols are implemented from an existing code base which includes its own buffer management scheme. NetBuffs are removed from the standard and replaced with a function callback.
 - The original standard called for an interface to the ability of some hardware to simultaneously accept packets for several hardware addresses. Such a feature is of dubious usefulness. In order to simplify the standard, station aliases are no longer part of the SANA-II Network Device Driver Specification. If station aliasing does turn out to be a useful feature available on some hardware for the Amiga, the standard can easily be extended to re-introduce station aliasing. Remember that all Exec drivers must check for io_Command
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values not supported by the driver. Hence, SANA-II commands can be added without requiring that existing drivers be rev'd.

- Since the IOSana2Req structure had to be changed anyway, many names in <devices/sana2.h> have been changed to be more consistent with other system names. It is believed that global search and replace should make this a mostly trivial change and that the benefits gained from consistent naming outweigh the inconvenience to those few who have existing SANA-II code.
 - Events are now defined as a bit mask rather than as scalars.
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