

Subject: : AmigaOS4

Topic: : Memory protection and tasks/processes

Re: Memory protection and tasks/processes

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@thread

Is MP anywhere to be seen in the AOS4 "roadmap"?

Pre study, kind of:

"Will AROS have memory protection, SVM, RT, ...?"

Several hundred Amiga experts (that's what they thought of themselves at least) tried for three years to find a way to implement memory protection (MP) for AmigaOS. They failed. You should take it as a fact that the normal AmigaOS will never have MP like Unix or Windows NT.

But all is not lost. There are plans to integrate a variant of MP into AROS which will allow protection of at least new programs which know about it. Some efforts in this area look really promising. Also, is it really a problem if your machine crashes? Let me explain, before you nail me to a tree. 😊 The problem is not that the machine crashes, but rather:

You have no good idea why it crashed. Basically, you end up having to poke with a 100ft pole into a swamp with a thick fog.

You lose your work. Rebooting the machine is really no issue.

What we could try to construct is a system which will at least alert if something dubious is happening and which can tell you in great detail what was happening when the machine crashed and which will allow you to save your work and then crash. There will also be a means to check what has been saved so you can be sure that you don't continue with corrupted data.

The same thing goes for SVM (swappable virtual memory), RT (resource tracking) and SMP (symmetric multiprocessing). We are currently planning how to implement them, making sure that adding these features will be painless. However, they do not have the highest priority right now. Very basic RT has been added, though." - by AROS devs

Weird version of MP: (a few thoughts while having a cup of tea)

- 1) MP spaces for new apps (old apps could still kill the OS)
- 2) possibility to rework MP apps after AOS+old apps crash (only legacy apps + data would be lost in crash)
- 3) moving AOS services gradually to MP area
- 4) ...???

Added with other SW shutdown + restore features, these could improve the useability of AOS @ work.
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