
Subject: 68000 -> IBM data conversion help wanted
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[...]

Can anyone out there help me with the following situation?

Mission Impossible:

Machine A is 68000-based, running on a non-standard OS (i.e., not publicly available).

Machine B is either an IBM-PC or an AT&T 6300.

Program X is compiled in C to run on both A and B. Obviously, different compilers are being used.

A data area created by X will be copied byte-by-byte from A to B.

Because of the differences in the way compilers arrange data variables, it is unlikely that X on B will be able to use the data area correctly without some sort of conversion, even though X uses identical structures on A and B.

Concerns:

Some of the conversion problems I foresee are-

- length compatibility for data types (char and short, signed and unsigned are used almost exclusively)
- alignment and consequent padding (for individual items and structures, especially unions)
- byte ordering
- embedded pointers (pointing to within the data area)

The conversion program will run on B when it receives the data area from A. This program can have access to both A's and B's symbol tables as well as the source structure definitions.

Help requested:

Is this possible????

Does such, or similar, program exist - even if for different machines?

Are there C compilers for IBM-PC that give me control of alignment?

Have I missed worrying about some conversion detail?

Any help at all to guide me in my folly.
Don't ask me why I want to do this. (I won't do it if I can't.)

Thanks for any responses. Send mail please.

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