

Accredited Standards Committee¹
X3, INFORMATION PROCESSING SYSTEMS

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Defect report: contiguity of vectors

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Should the elements of a `vector` be required to be in contiguous memory?²

The present state of affairs is:

- The standard imposes no such requirement that I can see;
- Every implementation does it that way anyway.

As a user, I am therefore in the odd position of not being able to rely on behavior that is portable to all the implementations I know about. Moreover, there are plenty of reasons why I might want to rely on that behavior for system-programming applications—especially if I want to use `vector<char>` instead of `malloc`.

So, I believe that the committee should explicitly answer the question.

I am personally agnostic as to what answer I would like to see. There is a good deal of convenience in a “yes” answer, but I am willing to be convinced that there is a technical reason why someone might want to reserve the ability to implement vectors in discontinuous memory.

But whatever the answer, I believe that the present state of affairs is one that we should change as soon as we can.

1. *Operating under the procedures of the American National Standards Institute (ANSI)*
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2. This question is entirely separate from the question of whether a vector iterator is required to be a pointer; the answer to that question is clearly “no,” as it would rule out debugging implementations)