

# A conditional transform algorithm for C++

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## Introduction

We propose the addition of a conditional transform algorithm, `std::transform_if` to the standard library. Design of `std::transform_if` should follow that in the Boost library. The current omission of `transform_if` from the C++ standard library is a cause of some surprise for experienced programmers.

## Impact on the standard

This proposal is a pure library extension. It requires additions to be made to the standard library header `<algorithm>`.

## Technical specifications

To be adopted from Boost.

## Acknowledgements

The authors would like to thank Denis Teplyashin for prompting the conversation that spawned this proposal.

## References

[`boost::transform_if`] “boost C++ libraries: Function template `transform_if`”  
<[http://www.boost.org/doc/libs/1\\_62\\_0/libs/compute/doc/html/boost/compute/transform\\_if.html](http://www.boost.org/doc/libs/1_62_0/libs/compute/doc/html/boost/compute/transform_if.html)>