

Ticket #4549 (new Bugs)

vector/matrix_assign do not work for integral types

Opened **2 years** agoLast modified **20 hours** agoReported by: Marco Guazzone
<marco.guazzone@...>Owned by: **guwi17**Milestone: **To Be Determined**Component: **uBLAS**Version: **Boost Development Trunk**Severity: **Problem**

Keywords:

Cc: jonathan.jones@...

Description

I have found a possible problem in `vector_assign` and `matrix_assign` functions when vector and matrix values have integral type.

For instance, when you try to assign two integral vectors (e.g., `ublas::vector<int>`), you'll end up with the following runtime assertion:

```
Check failed in file
boost-trunk/boost/numeric/ublas/detail/vector_assign.hpp
at line 370:
detail::expression_type_check (v, cv)
terminate called after throwing an instance of
'boost::numeric::ublas::external_logic'
what():  external logic or bad condition of inputs
Aborted (core dumped)
```

Similar exception will be thrown for integral matrices.

I have identified two possible issues:

1. In *detail/vector_assign.hpp* and *detail/matrix_assign.hpp*, the check in function `detail::equals` should use `<=` instead of `<`.
2. In *detail/config.hpp*, macro `B00ST_UBLAS_TYPE_CHECK_MIN` should get zero for integral types.

Attachments

- **vector_matrix_assign-allow_integral_types.patch** (2.3 KB) - added by Marco Guazzone <marco.guazzone@...> **2 years** ago.
Possible solution.
- **test_ticket4549.cpp** (2.4 KB) - added by Marco Guazzone <marco.guazzone@...> **2 years** ago.
Test case: test copy-construction/-assignment of an integral vector and an integral matrix. The test fails to run if the proposed patch is not applied.
- **vector_matrix_assign-allow_integral_types-20120827.patch** (2.3 KB) - added by marco.guazzone@... **20 hours** ago.
Patch file changed to fit actual (Boost 1.51) changes.

Change History

Changed 2 years ago by Marco Guazzone <marco.guazzone@...>

- **attachment** [vector_matrix_assign-allow_integral_types.patch](#) added

Possible solution.

Changed 2 years ago by Marco Guazzone <marco.guazzone@...>

- **attachment** [test_ticket4549.cpp](#) added

Test case: test copy-construction/-assignment of an integral vector and an integral matrix. The test fails to run if the proposed patch is not applied.

Changed 2 months ago by Jonathan Jones <jonathan.jones@...>

comment:1

- **Cc** [jonathan.jones@...](#) added

Changed 20 hours ago by marco.guazzone@...

comment:2

It seems that this patch has been never added to the repo. I cannot see it in current svn trunk.

Since I've realized that one of the involved files is changed (i.e., boost/numeric/ublas/detail/config.hpp), I add a new patch to fit actual changes.

The test file that I've already attached is still OK.

Changed 20 hours ago by marco.guazzone@...

- **attachment** [vector_matrix_assign-allow_integral_types-20120827.patch](#) added

Patch file changed to fit actual (Boost 1.51) changes.