Subject: Copy the content of a SortedVectorMap
Posted by forlano on Wed, 07 Aug 2024 17:52:33 GMT

Hello,

I have two SortedVectorMap

SortedVectorMap<int, PlayerTB> TBVega, TBS;

where


```
class PlayerTB : Moveable<PlayerTB> {
public:
 int id;
 int rank;
 Vector<String> tbs;
 PlayerTB() {}
};
```


At some moment I would like that the content of TBVega be identical to that of TBS but without loosing/destroying the content of TBS.
Of course I can iterate and copy one by one the elements. I would like to know if there is some efficient way to do it. I read about clone but the compiler complain things that I do not understand. Perhaps I need to do something on class PlayerTB.


```
 note: copy constructor of 'PlayerTB' is implicitly deleted because field 'tbs' has a deleted copy
constructor
     Vector<String> tbs;
              ^
C:\upp\uppsrc\Core\Vcont.h:290:2: note: copy constructor is implicitly deleted because
'Vector<Upp::String>' has a user-declared move construct
   or
     Vector(Vector&& v)            { Pick(pick(v)); }
     ^
```


Thanks,
Luigi

Subject: Re: Copy the content of a SortedVectorMap
Posted by jjacksonRIAB on Mon, 12 Aug 2024 21:14:51 GMT

Luigi,

I don't exactly grasp what you're trying to accomplish but if you want clone semantics you can accomplish it this way:

```cpp
#include <Core/Core.h>

using namespace Upp;

class PlayerTB : MoveableAndDeepCopyOption<PlayerTB> {
public:
    int id;
    int rank;
    Vector<String> tbs;

    PlayerTB(const PlayerTB& other, int) {
        id   = other.id;
        rank = other.rank;
        tbs  = clone(other.tbs);
    }

    PlayerTB() = default;
};

template <>
inline auto Upp::AsString(const PlayerTB& props) -> String {
    return Format(
        "PlayerTB: {\n"
        "   id:   %s\n"
        "   rank: %s\n"
        "   tbs:  %s\n"
        "}",
        FormatInt(props.id),
        FormatInt(props.rank),
        AsString(props.tbs));
}

CONSOLE_APP_MAIN {
    SortedVectorMap<int, PlayerTB> TBVega, TBS;

    auto& t = TBVega.Add(1);
    t.id = 1;
    t.rank = 2;
    t.tbs.Append({ "test", "test2" });

    auto& t2 = TBS.Add(2);
    t2.id = 2;
```

```
    t2.rank = 3;
    t2.tbs.Append({ "test3", "test4"});

    LOG("=== Before clone ===");
    LOG(TBVega);
    LOG(TBS);

    TBVega = clone(TBS);

    LOG("=== After clone ===");
    LOG(TBVega);
    LOG(TBS);
}
```

Log:


```
=== Before clone ===
{1: PlayerTB: {
    id:   1
    rank: 2
    tbs:  [test, test2]
}}
{2: PlayerTB: {
    id:   2
    rank: 3
    tbs:  [test3, test4]
}}
=== After clone ===
{2: PlayerTB: {
    id:   2
    rank: 3
    tbs:  [test3, test4]
}}
{2: PlayerTB: {
    id:   2
    rank: 3
    tbs:  [test3, test4]
}}
```

Subject: Re: Copy the content of a SortedVectorMap
Posted by forlano on Tue, 13 Aug 2024 21:33:48 GMT
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Thank you!

I wanted to do what you did.

Best regards,
Luigi