Subject: How do I construct a Vector from a C-style array?
Posted by laleksic on Sun, 22 Sep 2019 18:16:56 GMT
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Hello,
Given a C-style array (pointer + length), how would I construct a Vector from it?

Edit: To clarify, how do I wrap a Vector around it without copying the data?

Subject: Re: How do I construct a Vector from a C-style array?
Posted by huadong on Mon, 23 Sep 2019 07:56:56 GMT
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Are you looking what the code like this?

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

using namespace Upp;


int main()
{
 int a[] = {1, 2, 3, 4};
 int *p = a;
 int n = 4;

 Vector<int> v;
    for (auto begin = p, end = p+n; begin != end; ++begin)
        v << *begin;

 for (int &x : v)
  printf("x = %d\n", x);
}
```

Subject: Re: How do I construct a Vector from a C-style array?
Posted by laleksic on Mon, 23 Sep 2019 08:06:08 GMT
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Thanks,
This copies the elements one by one in a loop.

I was thinking is there a way to instantly (without copying) wrap a C-style array in a Vector? Since if I understand, Vector is a wrapper around C-style arrays.

Subject: Re: How do I construct a Vector from a C-style array?
Posted by huadong on Mon, 23 Sep 2019 08:33:20 GMT
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It seens there is no constructor directly match the c-style array, but we can setup a function for instead

```
#include <algorithm>
using namespace std;

#include <Core/Core.h>
using namespace Upp;

template <typename T>
Vector<T> makeVector(T *p, int n)
{
 Vector<T> v;
 v.SetCount(n);
 copy(p, p+n, v.begin());
 return v;  // Vector<T> has a move constructor, and it will be called here for high performance
}


int main()
{
 int a[] = {1, 2, 3, 4};
 for (auto &x : makeVector(a, 4))
  printf("x = %d\n", x);
}
```

Subject: Re: How do I construct a Vector from a C-style array?
Posted by mirek on Mon, 23 Sep 2019 09:47:32 GMT
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laleksic wrote on Sun, 22 September 2019 20:16Hello,
Given a C-style array (pointer + length), how would I construct a Vector from it?

Edit: To clarify, how do I wrap a Vector around it without copying the data?

```
 int x[3] = { 1, 2, 3 };
 Vector<int> h;
 h.SetRange(0, SubRange(x, 3));
 DDUMP(h);
```

Subject: Re: How do I construct a Vector from a C-style array?
Posted by Didier on Thu, 03 Oct 2019 20:58:05 GMT
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Nice, I didn't know Vector class could do this