

microsoft.public.vc.mfc: Re: Sorting a CObArray?

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From: Adrian Gibbons (adriangibbons_at_yahoo.co.uk)

Date: 03/27/04

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Thanks for your replies. I've actually found a solution to my problem from a posting back in 1997:

Google Groups link:

<http://groups.google.co.uk/groups?hl=en&lr=&ie=UTF-8&oe=UTF-8&selm=01bc7518%248dac3770%248adffe26%>

From: H. Tom Thomas (tthomas@seabase.com)

Subject: Re: sorted array

Newsgroups: microsoft.public.vc.mfc

Date: 1997/06/09

(EDITED)

Here is some code that does the trick. Derive a class from CObArray with a pure virtual function that you implement based on the attribute you want to sort.

```
// SortObArray.h
class CSortObArray : public CObArray
{
    DECLARE_DYNAMIC(CSortObArray)
public:
    CSortObArray();
    void Sort();
private:
    virtual BOOL CompareAndSwap(int pos) = 0;
};
```

```
// SortObArray.cpp
#include "stdafx.h"
#include "SortObArray.h"
```

```
IMPLEMENT_DYNAMIC(CSortObArray, CObArray)
```

```
CSortObArray::CSortObArray() : CObArray()
{
```

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```
}

// Sort
void CSortObArray::Sort()
{
    BOOL bNotDone = TRUE;

    while (bNotDone)
    {
        bNotDone = FALSE;
        for(int pos = 0;pos < GetUpperBound();pos++)
            bNotDone |= CompareAndSwap(pos);
    }
}

// CompareAndSwap write this according to your needs
BOOL CSortObArray_DerivedClass::CompareAndSwap(int pos)
{
    CObject* temp;
    int posFirst = pos;
    int posNext = pos + 1;

    if(((CSomeObj*)GetAt(posFirst))->m_sKey.CompareNoCase(((CSomeObj*)GetAt(posNext))->m_sKey)
    > 0)
    {
        temp = GetAt(posFirst);
        SetAt(posFirst, GetAt(posNext));
        SetAt(posNext, temp);
        return TRUE;
    }

    return FALSE;
}
```

For my implementation of CompareAndSwap() I've replaced "CSomeObj*" with "CStringArray*" and "m_sKey" with "GetAt(0)" to compare the first CString in the CStringArrays. I also moved the "CObject* temp" into the IF structure and replaced it with "CStringArray* temp = (CStringArray*)GetAt(posFirst)".

Due to the time pressures on my project and the fact that I do not know STL already, this is a good enough solution for me. Maybe I'll have a look at doing it using vectors and the STL in the future.

Hope this is of some help to people of the future :)

Adrian.