

Memory Magic 1/4

Launch MetroWerks CodeWarrior.

Load the project into MetroWerks Code Warrior as follows:

Click "File"->"Import project from mmp file"

Then Choose the SDK Symbian UIQ 21.

Click "Browse" to reach

C:\Symbian\UIQ_21\UIQExamples\papers\p
ep\memorymagic\memorymagic.mmp

To build and run press Ctrl+F5.

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1. Start the application memory magic.
2. Select New 1.
3. Select Delete 1 twice.
4. Find out what happens.
5. Now do the same for the menu items for CX object 2.
6. Explain the difference.

Hint: To answer it is needed to choose the menu option "Alloc Info" in the memory magic application as well as look in memormagic.cpp

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The macro `__UHEAP_SETFAIL(RHeap::EFailNext, 1)` will tell Symbian to simulate an empty heap next time memory is requested

Now, in `Memorymagic.cpp` add the following case to the switch statement:

```
case EMagicCmdEmptyHeap:
    __UHEAP_SETFAIL(RHeap::EFailNext, 1);
    {
        iObject6=CZ::NewL();
        iEikonEnv->InfoMsg(_L("Empty Heap"));
    }
    break;
```

In `memorymagic.hrh` add the following:

```
#define EMagicCmdEmptyHeap 0x100d
```

In `memorymagic.rss` add a line

```
MENU_ITEM {command=EMagicCmdEmptyHeap; txt="Empty Heap"};
```

Build and run the modified application. Explain what happens.

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Explain what happens when menu each of the following menu options are pressed:

- Use 3
- Use 4
- Use 5
- Use 6
- Use 7