

# How would I create my own CBL\_ALLOC\_MEM and CBL\_FREE\_MEM routines?

Here are some examples:

```
IDENTIFICATION DIVISION.          PROGRAM-ID. CBL_ALLOC_MEM.          ENVIRONMENT DIVISION.
DATA DIVISION.                    LINKAGE SECTION.          01 LNK-MEM-POINTER    POINTER.
.          01 LNK-MEM-SIZE          UNSIGNED-INT.          01 LNK-FLAGS          UNSIGNED-INT.
PROCEDURE DIVISION USING LNK-MEM-POINTER          LNK-FLAGS.          MAIN.          IF LNK-MEM-SIZE GREATER THAN ZERO
CALL "calloc" USING BY VALUE 1
BY VALUE LNK-MEM-SIZE          RETURNING LNK-MEM-POINTER
END-IF.          GOBACK.
```

```
IDENTIFICATION DIVISION.          PROGRAM-ID. CBL_FREE_MEM.          ENVIRONMENT DIVISION.
DATA DIVISION.                    LINKAGE SECTION.          01 LNK-MEM-POINTER    POINTER.
PROCEDURE DIVISION USING LNK-MEM-POINTER.          MAIN.          IF LNK-MEM-POINTER NOT EQUAL TO ZERO
CALL "free" USING BY VALUE LNK-MEM-POINTER
END-IF.          GOBACK.
```

Note that both of the above programs must be compiled with the -cp POINTER compatibility option.

On Windows the calloc() and free() functions are in MSVCRT.DLL which must be preloaded by specifying iscobol.shared\_library\_list=msvcrt.dll.

For example, the following test program allocates and frees 100 bytes:

```
id division.program-id. test.data division.working-storage section.77 mem-ptr usage pointer.
procedure division.main-logic.    call "CBL_ALLOC_MEM" using mem-ptr, by value 100, by value 0.    call "CBL_FREE_MEM" using by value mem-ptr.
```

To compile and run:

```
iscc -cp CBL_ALLOC_MEM.cbliscc -cp CBL_FREE_MEM.cbliscc -cp test.cbljava -Discobol.shared_library_list=msvcrt.dll TEST
```

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