

Report on OCaml/C Memory Leaks

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1 ocaml-mad-0.1.0

```
static value copy_buffer(char const *b, int len)
{
  CAMLlocal1(res);
  res = alloc_string(len);
  memmove(String_val(res), b, len);
  return res;
}
```

Listing 1: copy_buffer

2 ocaml-vorbis-2.1.0

```
CAMLprim value ocaml_vorbis_utf8_decode(value string)
{
  CAMLparam1 (string);
  char* utf8;
  if(utf8_decode(String_val(string), &utf8) >= 0)
  {
    CAMLreturn(ocaml_copy_string(utf8));
  }
  caml_raise_with_arg(
    *caml_named_value("vorbis_exn_utf8_failure"),
    string);
}
```

Listing 2: utf8_decode

3 ctype-4.8.0

```
#include <caml/memory.h>
#include <caml/mlvalues.h>
#include "ctypes_raw_pointer.h"
```

```

/* 'a -> voidp */
value ctypes_caml_roots_create(value v)
{
    value *p = caml_stat_alloc(sizeof *p);
    *p = v;
    caml_register_generational_global_root(p);
    return CTYPES_FROM_PTR(p);
}

/* voidp -> 'a -> unit */
value ctypes_caml_roots_set(value p_, value v)
{
    value *p = CTYPES_TO_PTR(p_);
    caml_modify_generational_global_root(p, v);
    return Val_unit;
}

/* voidp -> 'a */
value ctypes_caml_roots_get(value p_)
{
    value *p = CTYPES_TO_PTR(p_);
    return *p;
}

/* voidp -> unit */
value ctypes_caml_roots_release(value p_)
{
    value *p = CTYPES_TO_PTR(p_);
    caml_remove_generational_global_root(p);
    return Val_unit;
}

```

Listing 3: ctype_root.c