

Cadmium — Primitives compatibility

Document version: 1.4

<http://cadmium.x9c.fr>

Copyright © 2007-2010 Xavier Clerc – cadmium@x9c.fr
Released under the LGPL version 3

February 6, 2010

Abstract: This document indicates the compatibility of Cadmium (version 1.4) with the reference Caml¹ implementation in its “3.11.2” version.

This document is structured in three parts: the first one lists all primitives sorted by ascending lexical ordering in a table, the second one provides details for each primitive that is not totally compatible with the reference implementation, and the third part lists primitives by compatibility level. Hyperlinks allow easy navigation between the different parts of the document.

Table of primitives

The following table lists all primitives by ascending name, along with the library and module they belong to (“ [runtime] ” means that the primitive is not used in any module of the standard library or of any of the other libraries included with the standard Caml distribution). For each primitive, the level of compatibility with the reference implementation is precised. One should notice that some incompatibilities apply to the whole Cadmium distribution and are not given on a per-primitive basis. Such incompatibilities are:

- the failure of a primitive due to a security manager exception (*e. g.* access to a local file in an applet context);
- the contents of error message, as seen in exception for example, because they are based on the messages of Java exceptions and not on the C underlying library.

Throughout this document, the following terms are used to specify compatibility level:

full the primitive behaves as the reference in normal situations but may differ in exceptional circumstances or achieve the same behaviour using very different means;

partial the primitive differs from the reference in substantial ways;

not implemented the primitive always raises an exception indicating that the implementation is missing.

¹The official Caml website can be reached at caml.inria.fr and contains the full development suite (compiler, tools, virtual machine, *etc.*) as well as links to third-party contributions.

Table 1: Table of instructions (alphabetical order).

primitive	library	module	compatibility
caml-alloc-dummy	[runtime]	[runtime]	full
caml-alloc-dummy-float	[runtime]	[runtime]	full
caml-ensure-stack-capacity	[runtime]	[runtime]	full
caml-get-current-environment	[runtime]	[runtime]	full
caml-get-global-data	[runtime]	[runtime]	full
caml-get-section-table	[runtime]	[runtime]	full
caml-invoke-traced-function	[runtime]	[runtime]	full
caml-realloc-global	[runtime]	[runtime]	full
caml-reify-bytecode	[runtime]	[runtime]	full
caml-terminfo-backup	[runtime]	[runtime]	full
caml-terminfo-resume	[runtime]	[runtime]	full
caml-terminfo-setup	[runtime]	[runtime]	full
caml-terminfo-standout	[runtime]	[runtime]	full
caml-update-dummy	[runtime]	[runtime]	full
caml-ba-blit	bigarray	Bigarray	full
caml-ba-create	bigarray	Bigarray	full
caml-ba-dim	bigarray	Bigarray	full
caml-ba-fill	bigarray	Bigarray	full
caml-ba-get-1	bigarray	Bigarray	full
caml-ba-get-2	bigarray	Bigarray	full
caml-ba-get-3	bigarray	Bigarray	full
caml-ba-get-generic	bigarray	Bigarray	full
caml-ba-init	bigarray	Bigarray	full
caml-ba-kind	bigarray	Bigarray	full
caml-ba-layout	bigarray	Bigarray	full
caml-ba-map-file	bigarray	Bigarray	full
caml-ba-num-dims	bigarray	Bigarray	full
caml-ba-reshape	bigarray	Bigarray	full
caml-ba-set-1	bigarray	Bigarray	full
caml-ba-set-2	bigarray	Bigarray	full
caml-ba-set-3	bigarray	Bigarray	full
caml-ba-set-generic	bigarray	Bigarray	full
caml-ba-slice	bigarray	Bigarray	full
caml-ba-sub	bigarray	Bigarray	full
caml-dbm-close	dbm	Dbm	full
caml-dbm-delete	dbm	Dbm	full
caml-dbm-fetch	dbm	Dbm	full
caml-dbm-firstkey	dbm	Dbm	full
caml-dbm-insert	dbm	Dbm	full
caml-dbm-nextkey	dbm	Dbm	full
caml-dbm-open	dbm	Dbm	full
caml-dbm-replace	dbm	Dbm	full

continued on next page

continued from previous page

primitive	library	module	compatibility
caml-gr-blit-image	graph	Graphics	full
caml-gr-clear-graph	graph	Graphics	full
caml-gr-close-graph	graph	Graphics	full
caml-gr-create-image	graph	Graphics	full
caml-gr-current-x	graph	Graphics	full
caml-gr-current-y	graph	Graphics	full
caml-gr-display-mode	graph	Graphics	full
caml-gr-draw-arc	graph	Graphics	full
caml-gr-draw-char	graph	Graphics	full
caml-gr-draw-image	graph	Graphics	full
caml-gr-draw-rect	graph	Graphics	full
caml-gr-draw-string	graph	Graphics	full
caml-gr-dump-image	graph	Graphics	full
caml-gr-fill-arc	graph	Graphics	full
caml-gr-fill-poly	graph	Graphics	full
caml-gr-fill-rect	graph	Graphics	full
caml-gr-lineto	graph	Graphics	full
caml-gr-make-image	graph	Graphics	full
caml-gr-moveto	graph	Graphics	full
caml-gr-open-graph	graph	Graphics	full
caml-gr-plot	graph	Graphics	full
caml-gr-point-color	graph	Graphics	full
caml-gr-remember-mode	graph	Graphics	full
caml-gr-resize-window	graph	Graphics	full
caml-gr-set-color	graph	Graphics	full
caml-gr-set-font	graph	Graphics	full
caml-gr-set-line-width	graph	Graphics	full
caml-gr-set-text-size	graph	Graphics	full
caml-gr-set-window-title	graph	Graphics	full
caml-gr-sigio-handler	graph	Graphics	full
caml-gr-sigio-signal	graph	Graphics	full
caml-gr-size-x	graph	Graphics	full
caml-gr-size-y	graph	Graphics	full
caml-gr-sound	graph	Graphics	full
caml-gr-synchronize	graph	Graphics	full
caml-gr-text-size	graph	Graphics	full
caml-gr-wait-event	graph	Graphics	full
caml-gr-window-id	graph	Graphics	full
caml-gr-close-subwindow	graph	GraphicsX11	partial
caml-gr-open-subwindow	graph	GraphicsX11	partial
camltk-add-file-input	labltk	Tk	partial
camltk-add-file-output	labltk	Tk	partial
camltk-add-timer	labltk	Tk	full

continued on next page

continued from previous page

primitive	library	module	compatibility
camltk-dooneevent	labltk	Tk	full
camltk-finalize	labltk	Tk	full
camltk-getimgdata	labltk	Tk	full
camltk-getvar	labltk	Tk	full
camltk-init	labltk	Tk	full
camltk-opentk	labltk	Tk	full
camltk-rem-file-input	labltk	Tk	full
camltk-rem-file-output	labltk	Tk	partial
camltk-rem-timer	labltk	Tk	full
camltk-return	labltk	Tk	full
camltk-setimgdata-bytecode	labltk	Tk	full
camltk-setimgdata-native	labltk	Tk	full
camltk-setvar	labltk	Tk	full
camltk-splitlist	labltk	Tk	full
camltk-tcl-direct-eval	labltk	Tk	full
camltk-tcl-eval	labltk	Tk	full
camltk-tk-mainloop	labltk	Tk	full
camltk-trace-var	labltk	Tk	full
camltk-untrace-var	labltk	Tk	full
camltk-wait-des	labltk	Tk	full
camltk-wait-vis	labltk	Tk	full
add-nat	num	Nat	full
blit-nat	num	Nat	full
compare-digits-nat	num	Nat	full
compare-nat	num	Nat	full
complement-nat	num	Nat	full
create-nat	num	Nat	full
decr-nat	num	Nat	full
div-digit-nat	num	Nat	full
div-nat	num	Nat	full
incr-nat	num	Nat	full
initialize-nat	num	Nat	full
is-digit-int	num	Nat	full
is-digit-normalized	num	Nat	full
is-digit-odd	num	Nat	full
is-digit-zero	num	Nat	full
land-digit-nat	num	Nat	full
length-nat	num	Nat	full
lor-digit-nat	num	Nat	full
lxor-digit-nat	num	Nat	full
mult-digit-nat	num	Nat	full
mult-nat	num	Nat	full
nth-digit-nat	num	Nat	full

continued on next page

continued from previous page

primitive	library	module	compatibility
nth-digit-nat-native	num	Nat	full
num-digits-nat	num	Nat	full
num-leading-zero-bits-in-digit	num	Nat	full
set-digit-nat	num	Nat	full
set-digit-nat-native	num	Nat	full
set-to-zero-nat	num	Nat	full
shift-left-nat	num	Nat	full
shift-right-nat	num	Nat	full
square-nat	num	Nat	full
sub-nat	num	Nat	full
caml-array-get	stdlib	Array	full
caml-array-get-addr	stdlib	Array	full
caml-array-get-float	stdlib	Array	full
caml-array-set	stdlib	Array	full
caml-array-set-addr	stdlib	Array	full
caml-array-set-float	stdlib	Array	full
caml-array-unsafe-get	stdlib	Array	full
caml-array-unsafe-get-float	stdlib	Array	full
caml-array-unsafe-set	stdlib	Array	full
caml-array-unsafe-set-addr	stdlib	Array	full
caml-array-unsafe-set-float	stdlib	Array	full
caml-make-array	stdlib	Array	full
caml-make-vect	stdlib	Array	full
caml-register-named-value	stdlib	Callback	full
caml-md5-chan	stdlib	Digest	full
caml-md5-string	stdlib	Digest	full
caml-dynlink-add-primitive	stdlib	Dynlink	full
caml-dynlink-close-lib	stdlib	Dynlink	full
caml-dynlink-get-current-libs	stdlib	Dynlink	full
caml-dynlink-lookup-symbol	stdlib	Dynlink	partial
caml-dynlink-open-lib	stdlib	Dynlink	partial
caml-final-register	stdlib	Gc	full
caml-final-release	stdlib	Gc	full
caml-gc-compaction	stdlib	Gc	partial
caml-gc-counters	stdlib	Gc	partial
caml-gc-full-major	stdlib	Gc	partial
caml-gc-get	stdlib	Gc	full
caml-gc-major	stdlib	Gc	partial
caml-gc-major-slice	stdlib	Gc	partial
caml-gc-minor	stdlib	Gc	partial
caml-gc-quick-stat	stdlib	Gc	partial
caml-gc-set	stdlib	Gc	partial
caml-gc-stat	stdlib	Gc	partial

continued on next page

continued from previous page

primitive	library	module	compatibility
caml-hash-univ-param	stdlib	Hashtbl	full
caml-int32-add	stdlib	Int32	full
caml-int32-and	stdlib	Int32	full
caml-int32-bits-of-float	stdlib	Int32	full
caml-int32-compare	stdlib	Int32	full
caml-int32-div	stdlib	Int32	full
caml-int32-float-of-bits	stdlib	Int32	full
caml-int32-format	stdlib	Int32	full
caml-int32-mod	stdlib	Int32	full
caml-int32-mul	stdlib	Int32	full
caml-int32-neg	stdlib	Int32	full
caml-int32-of-float	stdlib	Int32	full
caml-int32-of-int	stdlib	Int32	full
caml-int32-of-string	stdlib	Int32	full
caml-int32-or	stdlib	Int32	full
caml-int32-shift-left	stdlib	Int32	full
caml-int32-shift-right	stdlib	Int32	full
caml-int32-shift-right-unsigned	stdlib	Int32	full
caml-int32-sub	stdlib	Int32	full
caml-int32-to-float	stdlib	Int32	full
caml-int32-to-int	stdlib	Int32	full
caml-int32-xor	stdlib	Int32	full
caml-int64-add	stdlib	Int64	full
caml-int64-and	stdlib	Int64	full
caml-int64-bits-of-float	stdlib	Int64	full
caml-int64-compare	stdlib	Int64	full
caml-int64-div	stdlib	Int64	full
caml-int64-float-of-bits	stdlib	Int64	full
caml-int64-format	stdlib	Int64	full
caml-int64-mod	stdlib	Int64	full
caml-int64-mul	stdlib	Int64	full
caml-int64-neg	stdlib	Int64	full
caml-int64-of-float	stdlib	Int64	full
caml-int64-of-int	stdlib	Int64	full
caml-int64-of-int32	stdlib	Int64	full
caml-int64-of-nativeint	stdlib	Int64	full
caml-int64-of-string	stdlib	Int64	full
caml-int64-or	stdlib	Int64	full
caml-int64-shift-left	stdlib	Int64	full
caml-int64-shift-right	stdlib	Int64	full
caml-int64-shift-right-unsigned	stdlib	Int64	full
caml-int64-sub	stdlib	Int64	full
caml-int64-to-float	stdlib	Int64	full

continued on next page

continued from previous page

primitive	library	module	compatibility
caml-int64-to-int	stdlib	Int64	full
caml-int64-to-int32	stdlib	Int64	full
caml-int64-to-nativeint	stdlib	Int64	full
caml-int64-xor	stdlib	Int64	full
caml-lex-engine	stdlib	Lexing	full
caml-new-lex-engine	stdlib	Lexing	full
caml-input-value	stdlib	Marshal	full
caml-input-value-from-string	stdlib	Marshal	full
caml-marshal-data-size	stdlib	Marshal	full
caml-output-value	stdlib	Marshal	full
caml-output-value-to-buffer	stdlib	Marshal	full
caml-output-value-to-string	stdlib	Marshal	full
caml-nativeint-add	stdlib	Nativeint	full
caml-nativeint-and	stdlib	Nativeint	full
caml-nativeint-compare	stdlib	Nativeint	full
caml-nativeint-div	stdlib	Nativeint	full
caml-nativeint-format	stdlib	Nativeint	full
caml-nativeint-mod	stdlib	Nativeint	full
caml-nativeint-mul	stdlib	Nativeint	full
caml-nativeint-neg	stdlib	Nativeint	full
caml-nativeint-of-float	stdlib	Nativeint	full
caml-nativeint-of-int	stdlib	Nativeint	full
caml-nativeint-of-int32	stdlib	Nativeint	full
caml-nativeint-of-string	stdlib	Nativeint	full
caml-nativeint-or	stdlib	Nativeint	full
caml-nativeint-shift-left	stdlib	Nativeint	full
caml-nativeint-shift-right	stdlib	Nativeint	full
caml-nativeint-shift-right-unsigned	stdlib	Nativeint	full
caml-nativeint-sub	stdlib	Nativeint	full
caml-nativeint-to-float	stdlib	Nativeint	full
caml-nativeint-to-int	stdlib	Nativeint	full
caml-nativeint-to-int32	stdlib	Nativeint	full
caml-nativeint-xor	stdlib	Nativeint	full
caml-get-public-method	stdlib	Obj	full
caml-lazy-follow-forward	stdlib	Obj	full
caml-lazy-make-forward	stdlib	Obj	full
caml-obj-add-offset	stdlib	Obj	full
caml-obj-block	stdlib	Obj	full
caml-obj-dup	stdlib	Obj	full
caml-obj-is-block	stdlib	Obj	full
caml-obj-set-tag	stdlib	Obj	partial
caml-obj-tag	stdlib	Obj	full
caml-obj-truncate	stdlib	Obj	full

continued on next page

continued from previous page

primitive	library	module	compatibility
caml-static-alloc	stdlib	Obj	partial
caml-static-free	stdlib	Obj	full
caml-static-release-bytecode	stdlib	Obj	full
caml-static-resize	stdlib	Obj	partial
caml-parse-engine	stdlib	Parsing	full
caml-set-parser-trace	stdlib	Parsing	full
caml-abs-float	stdlib	Pervasives	full
caml-acos-float	stdlib	Pervasives	full
caml-add-float	stdlib	Pervasives	full
caml-asin-float	stdlib	Pervasives	full
caml-atan2-float	stdlib	Pervasives	full
caml-atan-float	stdlib	Pervasives	full
caml-ceil-float	stdlib	Pervasives	full
caml-channel-descriptor	stdlib	Pervasives	full
caml-classify-float	stdlib	Pervasives	full
caml-compare	stdlib	Pervasives	full
caml-cos-float	stdlib	Pervasives	full
caml-cosh-float	stdlib	Pervasives	full
caml-div-float	stdlib	Pervasives	full
caml-eq-float	stdlib	Pervasives	full
caml-equal	stdlib	Pervasives	full
caml-exp-float	stdlib	Pervasives	full
caml-float-compare	stdlib	Pervasives	full
caml-float-of-int	stdlib	Pervasives	full
caml-float-of-string	stdlib	Pervasives	full
caml-floor-float	stdlib	Pervasives	full
caml-fmod-float	stdlib	Pervasives	full
caml-format-float	stdlib	Pervasives	full
caml-format-int	stdlib	Pervasives	full
caml-frexp-float	stdlib	Pervasives	full
caml-ge-float	stdlib	Pervasives	full
caml-greaterequal	stdlib	Pervasives	full
caml-greaterthan	stdlib	Pervasives	full
caml-gt-float	stdlib	Pervasives	full
caml-int-compare	stdlib	Pervasives	full
caml-int-of-float	stdlib	Pervasives	full
caml-int-of-string	stdlib	Pervasives	full
caml-ldexp-float	stdlib	Pervasives	full
caml-le-float	stdlib	Pervasives	full
caml-lessequal	stdlib	Pervasives	full
caml-lessthan	stdlib	Pervasives	full
caml-log10-float	stdlib	Pervasives	full
caml-log-float	stdlib	Pervasives	full

continued on next page

continued from previous page

primitive	library	module	compatibility
caml-lt-float	stdlib	Pervasives	full
caml-ml-channel-size	stdlib	Pervasives	full
caml-ml-channel-size-64	stdlib	Pervasives	full
caml-ml-close-channel	stdlib	Pervasives	full
caml-ml-flush	stdlib	Pervasives	full
caml-ml-flush-partial	stdlib	Pervasives	full
caml-ml-input	stdlib	Pervasives	full
caml-ml-input-char	stdlib	Pervasives	full
caml-ml-input-int	stdlib	Pervasives	full
caml-ml-input-scan-line	stdlib	Pervasives	full
caml-ml-open-descriptor-in	stdlib	Pervasives	full
caml-ml-open-descriptor-out	stdlib	Pervasives	full
caml-ml-out-channels-list	stdlib	Pervasives	full
caml-ml-output	stdlib	Pervasives	full
caml-ml-output-char	stdlib	Pervasives	full
caml-ml-output-int	stdlib	Pervasives	full
caml-ml-output-partial	stdlib	Pervasives	full
caml-ml-pos-in	stdlib	Pervasives	full
caml-ml-pos-in-64	stdlib	Pervasives	full
caml-ml-pos-out	stdlib	Pervasives	full
caml-ml-pos-out-64	stdlib	Pervasives	full
caml-ml-peek-in	stdlib	Pervasives	full
caml-ml-peek-in-64	stdlib	Pervasives	full
caml-ml-peek-out	stdlib	Pervasives	full
caml-ml-peek-out-64	stdlib	Pervasives	full
caml-ml-set-binary-mode	stdlib	Pervasives	full
caml-modf-float	stdlib	Pervasives	full
caml-mul-float	stdlib	Pervasives	full
caml-neg-float	stdlib	Pervasives	full
caml-neq-float	stdlib	Pervasives	full
caml-notequal	stdlib	Pervasives	full
caml-power-float	stdlib	Pervasives	full
caml-sin-float	stdlib	Pervasives	full
caml-sinh-float	stdlib	Pervasives	full
caml-sqrt-float	stdlib	Pervasives	full
caml-sub-float	stdlib	Pervasives	full
caml-tan-float	stdlib	Pervasives	full
caml-tanh-float	stdlib	Pervasives	full
caml-backtrace-status	stdlib	Printexc	full
caml-get-exception-backtrace	stdlib	Printexc	full
caml-record-backtrace	stdlib	Printexc	full
caml-bitvect-test	stdlib	String	full
caml-blit-string	stdlib	String	full

continued on next page

continued from previous page

primitive	library	module	compatibility
caml-create-string	stdlib	String	full
caml-fill-string	stdlib	String	full
caml-is-printable	stdlib	String	full
caml-ml-string-length	stdlib	String	full
caml-string-compare	stdlib	String	full
caml-string-equal	stdlib	String	full
caml-string-get	stdlib	String	full
caml-string-greaterequal	stdlib	String	full
caml-string-greaterthan	stdlib	String	full
caml-string-lessequal	stdlib	String	full
caml-string-lessthan	stdlib	String	full
caml-string-notequal	stdlib	String	full
caml-string-set	stdlib	String	full
caml-install-signal-handler	stdlib	Sys	full
caml-sys-chdir	stdlib	Sys	full
caml-sys-close	stdlib	Sys	full
caml-sys-exit	stdlib	Sys	full
caml-sys-file-exists	stdlib	Sys	full
caml-sys-get-argv	stdlib	Sys	full
caml-sys-get-config	stdlib	Sys	full
caml-sys-getcwd	stdlib	Sys	full
caml-sys-getenv	stdlib	Sys	full
caml-sys-is-directory	stdlib	Sys	full
caml-sys-open	stdlib	Sys	partial
caml-sys-random-seed	stdlib	Sys	full
caml-sys-read-directory	stdlib	Sys	full
caml-sys-remove	stdlib	Sys	full
caml-sys-rename	stdlib	Sys	full
caml-sys-system-command	stdlib	Sys	full
caml-sys-time	stdlib	Sys	full
caml-weak-blit	stdlib	Weak	full
caml-weak-check	stdlib	Weak	full
caml-weak-create	stdlib	Weak	full
caml-weak-get	stdlib	Weak	full
caml-weak-get-copy	stdlib	Weak	full
caml-weak-set	stdlib	Weak	full
re-partial-match	str	Str	full
re-replacement-text	str	Str	full
re-search-backward	str	Str	full
re-search-forward	str	Str	full
re-string-match	str	Str	full
caml-condition-broadcast	systhreads	Condition	full
caml-condition-new	systhreads	Condition	full

continued on next page

continued from previous page

primitive	library	module	compatibility
caml-condition-signal	systhreads	Condition	full
caml-condition-wait	systhreads	Condition	full
caml-mutex-lock	systhreads	Mutex	full
caml-mutex-new	systhreads	Mutex	full
caml-mutex-try-lock	systhreads	Mutex	full
caml-mutex-unlock	systhreads	Mutex	full
caml-thread-exit	systhreads	Thread	full
caml-thread-id	systhreads	Thread	full
caml-thread-initialize	systhreads	Thread	full
caml-thread-join	systhreads	Thread	full
caml-thread-new	systhreads	Thread	full
caml-thread-self	systhreads	Thread	full
caml-thread-sigmask	systhreads	Thread	full
caml-thread-uncaught-exception	systhreads	Thread	full
caml-thread-yield	systhreads	Thread	full
caml-wait-signal	systhreads	Thread	full
thread-delay	threads	Thread	full
thread-id	threads	Thread	full
thread-inchan-ready	threads	Thread	full
thread-initialize	threads	Thread	full
thread-initialize-preemption	threads	Thread	full
thread-join	threads	Thread	full
thread-kill	threads	Thread	full
thread-new	threads	Thread	full
thread-outchan-ready	threads	Thread	full
thread-request-reschedule	threads	Thread	full
thread-select	threads	Thread	full
thread-self	threads	Thread	full
thread-sleep	threads	Thread	full
thread-uncaught-exception	threads	Thread	full
thread-wait-pid	threads	Thread	partial
thread-wait-read	threads	Thread	full
thread-wait-timed-read	threads	Thread	full
thread-wait-timed-write	threads	Thread	full
thread-wait-write	threads	Thread	full
thread-wakeup	threads	Thread	full
thread-yield	threads	Thread	full
unix-accept	unix	Unix	full
unix-access	unix	Unix	full
unix-alarm	unix	Unix	full
unix-bind	unix	Unix	full
unix-chdir	unix	Unix	full
unix-chmod	unix	Unix	partial

continued on next page

continued from previous page

primitive	library	module	compatibility
unix-chown	unix	Unix	partial
unix-chroot	unix	Unix	partial
unix-clear-close-on-exec	unix	Unix	not implemented
unix-clear-nonblock	unix	Unix	not implemented
unix-close	unix	Unix	full
unix-closedir	unix	Unix	full
unix-connect	unix	Unix	full
unix-dup	unix	Unix	full
unix-dup2	unix	Unix	full
unix-environment	unix	Unix	full
unix-error-message	unix	Unix	partial
unix-execv	unix	Unix	partial
unix-execve	unix	Unix	partial
unix-execcvp	unix	Unix	partial
unix-execcvpe	unix	Unix	partial
unix-exit	unix	Unix	full
unix-fchmod	unix	Unix	not implemented
unix-fchown	unix	Unix	not implemented
unix-fork	unix	Unix	not implemented
unix-fstat	unix	Unix	not implemented
unix-fstat-64	unix	Unix	not implemented
unix-ftruncate	unix	Unix	full
unix-ftruncate-64	unix	Unix	full
unix-getaddrinfo	unix	Unix	not implemented
unix-getcwd	unix	Unix	full
unix-getegid	unix	Unix	partial
unix-geteuid	unix	Unix	partial
unix-getgid	unix	Unix	partial
unix-getgrgid	unix	Unix	partial
unix-getgrnam	unix	Unix	partial
unix-getgroups	unix	Unix	not implemented
unix-gethostbyaddr	unix	Unix	full
unix-gethostbyname	unix	Unix	full
unix-gethostname	unix	Unix	full
unix-getitimer	unix	Unix	full
unix-getlogin	unix	Unix	full
unix-getnameinfo	unix	Unix	not implemented
unix-getpeername	unix	Unix	full
unix-getpid	unix	Unix	not implemented
unix-getppid	unix	Unix	not implemented
unix-getprotobyname	unix	Unix	partial
unix-getprotobynumber	unix	Unix	partial
unix-getpwnam	unix	Unix	partial

continued on next page

continued from previous page

primitive	library	module	compatibility
unix-getpwuid	unix	Unix	partial
unix-getservbyname	unix	Unix	partial
unix-getservbyport	unix	Unix	partial
unix-getsockname	unix	Unix	full
unix-getsockopt	unix	Unix	partial
unix-gettimeofday	unix	Unix	full
unix-getuid	unix	Unix	partial
unix-gmtime	unix	Unix	full
unix-inet-addr-of-string	unix	Unix	full
unix-isatty	unix	Unix	partial
unix-kill	unix	Unix	partial
unix-link	unix	Unix	partial
unix-listen	unix	Unix	full
unix-localtime	unix	Unix	full
unix-lockf	unix	Unix	not implemented
unix-lseek	unix	Unix	full
unix-lseek-64	unix	Unix	full
unix-lstat	unix	Unix	partial
unix-lstat-64	unix	Unix	partial
unix-mkdir	unix	Unix	partial
unix-mkfifo	unix	Unix	full
unix-mktime	unix	Unix	full
unix-nice	unix	Unix	partial
unix-open	unix	Unix	partial
unix-opendir	unix	Unix	full
unix-pipe	unix	Unix	full
unix-putenv	unix	Unix	not implemented
unix-read	unix	Unix	full
unix-readdir	unix	Unix	full
unix-readlink	unix	Unix	not implemented
unix-recv	unix	Unix	partial
unix-recvfrom	unix	Unix	partial
unix-rename	unix	Unix	full
unix-rewinddir	unix	Unix	full
unix-rmdir	unix	Unix	full
unix-select	unix	Unix	partial
unix-send	unix	Unix	partial
unix-sendto	unix	Unix	partial
unix-set-close-on-exec	unix	Unix	not implemented
unix-set-nonblock	unix	Unix	not implemented
unix-setgid	unix	Unix	partial
unix-setitimer	unix	Unix	partial
unix-setsid	unix	Unix	not implemented

continued on next page

continued from previous page

primitive	library	module	compatibility
unix-setsockopt-bool	unix	Unix	partial
unix-setsockopt-float	unix	Unix	partial
unix-setsockopt-int	unix	Unix	partial
unix-setsockopt-optint	unix	Unix	full
unix-setuid	unix	Unix	partial
unix-shutdown	unix	Unix	full
unix-sigpending	unix	Unix	full
unix-sigprocmask	unix	Unix	full
unix-sigsuspend	unix	Unix	full
unix-single-write	unix	Unix	partial
unix-sleep	unix	Unix	full
unix-socket	unix	Unix	partial
unix-socketpair	unix	Unix	not implemented
unix-stat	unix	Unix	partial
unix-stat-64	unix	Unix	partial
unix-string-of-inet-addr	unix	Unix	full
unix-symlink	unix	Unix	partial
unix-tcdrain	unix	Unix	not implemented
unix-tcflow	unix	Unix	not implemented
unix-tcflush	unix	Unix	not implemented
unix-tcgetattr	unix	Unix	not implemented
unix-tcsendbreak	unix	Unix	not implemented
unix-tcsetattr	unix	Unix	not implemented
unix-time	unix	Unix	full
unix-times	unix	Unix	partial
unix-truncate	unix	Unix	full
unix-truncate-64	unix	Unix	full
unix-umask	unix	Unix	not implemented
unix-unlink	unix	Unix	full
unix-utimes	unix	Unix	partial
unix-wait	unix	Unix	not implemented
unix-waitpid	unix	Unix	not implemented
unix-write	unix	Unix	full
camlzip-deflateEnd	zip	Zlib	full
camlzip-deflateInit	zip	Zlib	full
camlzip-deflate-bytecode	zip	Zlib	full
camlzip-inflateEnd	zip	Zlib	full
camlzip-inflateInit	zip	Zlib	full
camlzip-inflate-bytecode	zip	Zlib	full
camlzip-update-crc32	zip	Zlib	full

Details for each primitive

caml-dynlink-close-lib

library: stdlib

module: Dynlink

file: byterun/dynlink.c

compatibility: full

comment: Does only remove the element from the list of opened libraries.

caml-dynlink-lookup-symbol

library: stdlib

module: Dynlink

file: byterun/dynlink.c

compatibility: partial

comment: Looks for primitive in Cadmium primitive providers as well as primitive providers registered with the interpreter, then using loaded libraries.

caml-dynlink-open-lib

library: stdlib

module: Dynlink

file: byterun/dynlink.c

compatibility: partial

comment: If the specified filename denotes a jar file, its entries are loaded and will be checked during primitive lookup. If it denotes a file that is not a jar one, the library is opened and it is supposed that primitives will be provided by another way (*e.g.* builtin primitives). If it is not a file, a try is made to consider the passed path as a fully qualified class name used as a primitive provider.

caml-gc-compaction

library: stdlib

module: Gc

file: byterun/gc-ctrl.c

compatibility: partial

comment: Synonym of [caml-gc-full-major](#), except concerning counters.

caml-gc-counters

library: stdlib

module: Gc

file: byterun/gc-ctrl.c

compatibility: partial

comment: -

caml-gc-full-major

library: stdlib

module: Gc

file: byterun/gc-ctrl.c

compatibility: partial

comment: Hints the JVM to do a garbage collection and recycles collected blocks and values.

caml-gc-major

library: stdlib

module: Gc

file: byterun/gc-ctrl.c

compatibility: partial

comment: Synonym of [caml-gc-full-major](#), except concerning counters.

caml-gc-major-slice

library: stdlib

module: Gc

file: byterun/gc-ctrl.c

compatibility: partial

comment: Synonym of [caml-gc-full-major](#), except concerning counters.

caml-gc-minor

library: stdlib

module: Gc

file: byterun/gc-ctrl.c

compatibility: partial

comment: Synonym of [caml-gc-full-major](#), except concerning counters.

caml-gc-quick-stat**library:** stdlib**module:** Gc**file:** byterun/gc-ctrl.c**compatibility:** partial**comment:** Statistics are as accurate as permitted by Java access to GC statistics.**caml-gc-set****library:** stdlib**module:** Gc**file:** byterun/gc-ctrl.c**compatibility:** partial**comment:** Parameters are stored (to be returned by [caml-gc-set](#)) but are ignored, as garbage collection is done by the JVM and cannot be controlled.**caml-gc-stat****library:** stdlib**module:** Gc**file:** byterun/gc-ctrl.c**compatibility:** partial**comment:** Exact synonym of [caml-gc-quick-stat](#).**caml-gr-close-subwindow****library:** graph**module:** GraphicsX11**file:** graph/subwindow.c**compatibility:** partial**comment:** Does nothing.

caml-gr-open-subwindow

library: graph

module: GraphicsX11

file: graph/subwindow.c

compatibility: partial

comment: Returns a fake id.

caml-gr-set-font

library: graph

module: Graphics

file: graph/text.c

compatibility: full

comment: Argument is interpreted as a Java font name.

caml-install-signal-handler

library: stdlib

module: Sys

file: byterun/signals.c

compatibility: full

comment: Signals may seem to disappear due to JVM-coexistence of multiple interpreted programs.

caml-is-printable

library: stdlib

module: String

file: byterun/str.c

compatibility: full

comment: No locale is used.

caml-md5-chan

library: stdlib

module: Digest

file: byterun/md5.c

compatibility: full

comment: Raises Invalid-argument if MD5 algorithm is not available.

caml-md5-string

library: stdlib

module: Digest

file: byterun/md5.c

compatibility: full

comment: Raises Invalid-argument if MD5 algorithm is not available.

caml-ml-flush-partial

library: stdlib

module: Pervasives

file: byterun/io.c

compatibility: full

comment: Exact synonym of [caml-ml-flush](#).

caml-ml-output-partial

library: stdlib

module: Pervasives

file: byterun/io.c

compatibility: full

comment: Exact synonym of [caml-ml-output](#).

caml-ml-set-binary-mode

library: stdlib

module: Pervasives

file: byterun/io.c

compatibility: full

comment: Does nothing.

caml-obj-set-tag

library: stdlib

module: Obj

file: byterun/obj.c

compatibility: partial

comment: Subsequent use of block will fail if tag change implies representation shift.

caml-static-alloc

library: stdlib

module: Obj

file: byterun/obj.c

compatibility: partial

comment: Returns a string block.

caml-static-free

library: stdlib

module: Obj

file: byterun/obj.c

compatibility: full

comment: Does nothing.

caml-static-release-bytecode

library: stdlib

module: Obj

file: byterun/obj.c

compatibility: full

comment: Does nothing.

caml-static-resize

library: stdlib

module: Obj

file: byterun/obj.c

compatibility: partial

comment: Treats parameter as a string and returns another one.

caml-sys-exit**library:** stdlib**module:** Sys**file:** byterun/sys.c**compatibility:** full

comment: According to interpreter parameters, either true (JVM shutdown) or false (stop of the Cadmium-interpreted program) exit. False exit is needed to allow several interpreted programs to coexist within the same JVM (as the end of one of these programs should not entail exit from JVM and hence stop other programs as well).

caml-sys-get-argv**library:** stdlib**module:** Sys**file:** byterun/sys.c**compatibility:** full

comment: `exe-name` is the empty string when the interpreter is constructed from a stream that is not a file.

caml-sys-get-config**library:** stdlib**module:** Sys**file:** byterun/sys.c**compatibility:** full

comment: Returns "Cadmium", "Unix", "Cygwin", "Win32" or "MacOS" according to interpreter parameters. "Unix", "Cygwin", "Win32" or "MacOS" needed for Graphics. Size is 32.

caml-sys-open**library:** stdlib**module:** Sys**file:** byterun/sys.c**compatibility:** partial

comment: Only supports filenames handled by Java.

caml-sys-random-seed

library: stdlib

module: Sys

file: byterun/sys.c

compatibility: full

comment: Returns `System.currentTimeMillis() / 1000`.

caml-sys-time

library: stdlib

module: Sys

file: byterun/sys.c

compatibility: full

comment: Returns the (real) time elapsed since start, not the time used by the program.

caml-terminfo-backup

library: [runtime]

module: [runtime]

file: byterun/terminfo.c

compatibility: full

comment: No terminal support.

caml-terminfo-resume

library: [runtime]

module: [runtime]

file: byterun/terminfo.c

compatibility: full

comment: No terminal support.

caml-terminfo-setup

library: [runtime]

module: [runtime]

file: byterun/terminfo.c

compatibility: full

comment: No terminal support.

caml-terminfo-standout

library: [runtime]

module: [runtime]

file: byterun/terminfo.c

compatibility: full

comment: No terminal support.

camltk-add-file-input

library: labltk

module: Tk

file: labltk/support/cltkFile.c

compatibility: partial

comment: Implemented by polling.

camltk-add-file-output

library: labltk

module: Tk

file: labltk/support/cltkFile.c

compatibility: partial

comment: Does nothing.

camltk-rem-file-output

library: labltk

module: Tk

file: labltk/support/cltkFile.c

compatibility: partial

comment: Does nothing.

camlzip-deflate-bytecode

library: zip

module: Zlib

file: camlzip/zlibstubs.c

compatibility: full

comment: For flush parameter, only Z-FINISH is supported.

camlzip-inflate-bytecode

library: zip

module: Zlib

file: camlzip/zlibstubs.c

compatibility: full

comment: Flush parameter is ignored.

thread-inchan-ready

library: threads

module: Thread

file: threads/scheduler.c

compatibility: full

comment: Always returns true.

thread-outchan-ready

library: threads

module: Thread

file: threads/scheduler.c

compatibility: full

comment: Always returns true.

thread-wait-pid

library: threads

module: Thread

file: threads/scheduler.c

compatibility: partial

comment: Does nothing, returning immediately.

unix-chmod

library: unix

module: Unix

file: unix/chmod.c

compatibility: partial

comment: Emulation by unix executable, if enabled and available.

unix-chown

library: unix

module: Unix

file: unix/chown.c

compatibility: partial

comment: Emulation by unix executable, if enabled and available.

unix-chroot

library: unix

module: Unix

file: unix/chroot.c

compatibility: partial

comment: Emulation by unix executable, if enabled and available.

unix-clear-close-on-exec

library: unix

module: Unix

file: unix/fcntl.c

compatibility: not implemented

comment: -

unix-clear-nonblock

library: unix

module: Unix

file: unix/fcntl.c

compatibility: not implemented

comment: -

unix-error-message

library: unix

module: Unix

file: unix/errmsg.c

compatibility: partial

comment: Error messages from OCaml source.

unix-execv**library:** unix**module:** Unix**file:** unix/execv.c**compatibility:** partial**comment:** Emulated by program execution, then interpretation stop. Process name is thus not set.**unix-execve****library:** unix**module:** Unix**file:** unix/execve.c**compatibility:** partial**comment:** Emulated by program execution, then interpretation stop. Process name is thus not set.**unix-execvp****library:** unix**module:** Unix**file:** unix/execvp.c**compatibility:** partial**comment:** Emulated by program execution, then interpretation stop. Process name is thus not set.**unix-execvpe****library:** unix**module:** Unix**file:** unix/execvp.c**compatibility:** partial**comment:** Emulated by program execution, then interpretation stop. Process name is thus not set.

unix-fchmod

library: unix

module: Unix

file: unix/fchmod.c

compatibility: not implemented

comment: -

unix-fchown

library: unix

module: Unix

file: unix/fchown.c

compatibility: not implemented

comment: -

unix-fork

library: unix

module: Unix

file: unix/fork.c

compatibility: not implemented

comment: -

unix-fstat

library: unix

module: Unix

file: unix/stat.c

compatibility: not implemented

comment: -

unix-fstat-64

library: unix

module: Unix

file: unix/stat.c

compatibility: not implemented

comment: -

unix-getaddrinfo

library: unix

module: Unix

file: unix/getaddrinfo.c

compatibility: not implemented

comment: -

unix-getegid

library: unix

module: Unix

file: unix/getegid.c

compatibility: partial

comment: Always returns 1.

unix-geteuid

library: unix

module: Unix

file: unix/geteuid.c

compatibility: partial

comment: Always returns 1.

unix-getgid

library: unix

module: Unix

file: unix/getgid.c

compatibility: partial

comment: Always returns 1.

unix-getgrgid

library: unix

module: Unix

file: unix/getgr.c

compatibility: partial

comment: Always raises 'Not-found'.

unix-getgrnam

library: unix

module: Unix

file: unix/getgr.c

compatibility: partial

comment: Always raises 'Not-found'.

unix-getgroups

library: unix

module: Unix

file: unix/getgroups.c

compatibility: not implemented

comment: -

unix-gethostbyaddr

library: unix

module: Unix

file: unix/gethost.c

compatibility: full

comment: Array of aliases is always empty.

unix-gethostbyname

library: unix

module: Unix

file: unix/gethost.c

compatibility: full

comment: Array of aliases is always empty.

unix-getnameinfo

library: unix

module: Unix

file: unix/getnameinfo.c

compatibility: not implemented

comment: -

unix-getpid

library: unix

module: Unix

file: unix/getpid.c

compatibility: not implemented

comment: -

unix-getppid

library: unix

module: Unix

file: unix/getppid.c

compatibility: not implemented

comment: -

unix-getprotobyname

library: unix

module: Unix

file: unix/getproto.c

compatibility: partial

comment: Always raises 'Not-found'.

unix-getprotobynumber

library: unix

module: Unix

file: unix/getproto.c

compatibility: partial

comment: Always raises 'Not-found'.

unix-getpwnam

library: unix

module: Unix

file: unix/getpw.c

compatibility: partial

comment: Always raises 'Not-found'.

unix-getpwuid

library: unix

module: Unix

file: unix/getpw.c

compatibility: partial

comment: Always raises 'Not-found'.

unix-getservbyname

library: unix

module: Unix

file: unix/getserv.c

compatibility: partial

comment: Always raises 'Not-found'.

unix-getservbyport

library: unix

module: Unix

file: unix/getserv.c

compatibility: partial

comment: Always raises 'Not-found'.

unix-getsockopt

library: unix

module: Unix

file: unix/sockopt.c

compatibility: partial

comment: Only supports `SO-KEEPALIVE`, `SO-REUSEADDR`, `SO-OOBINLINE`, `SO-BROADCAST`, `TCP-NODELAY`, `SO-SNDBUF`, and `SO-RCVBUF`. Does not support `SO-ACCEPTCONN`, `SO-DONTRROUTE`, `SO-DEBUG`, `IPV6-ONLY`, `SO-ERROR`, `SO-TYPE`, `SO-RCVLOWAT`, `SO-SNDLOWAT`, `SO-RCVTIMEO`, `SO-SNDTIMEO`, and `get-sockopt-error`.

unix-getuid

library: unix

module: Unix

file: unix/getuid.c

compatibility: partial

comment: Always returns 1.

unix-inet-addr-of-string

library: unix

module: Unix

file: unix/addrofstr.c

compatibility: full

comment: Also accept textual representation (*e. g.* "localhost").

unix-isatty

library: unix

module: Unix

file: unix/isatty.c

compatibility: partial

comment: Returns true if and only if the passed designates standard output or standard error (this hack has been set up for camlp4).

unix-kill

library: unix

module: Unix

file: unix/kill.c

compatibility: partial

comment: Emulation by unix executable, if enabled and available.

unix-link

library: unix

module: Unix

file: unix/link.c

compatibility: partial

comment: Emulation by unix executable, if enabled and available.

unix-lockf

library: unix

module: Unix

file: unix/lockf.c

compatibility: not implemented

comment: -

unix-lstat

library: unix

module: Unix

file: unix/stat.c

compatibility: partial

comment: Exact synonym of [unix-stat](#).

unix-lstat-64

library: unix

module: Unix

file: unix/stat.c

compatibility: partial

comment: Exact synonym of [unix-stat-64](#).

unix-mkdir

library: unix

module: Unix

file: unix/mkdir.c

compatibility: partial

comment: Only supports filenames handled by Java.

unix-mkfifo

library: unix

module: Unix

file: unix/mkfifo.c

compatibility: full

comment: Emulation by unix executable, if enabled and available.

unix-nice

library: unix

module: Unix

file: unix/nice.c

compatibility: partial

comment: Does nothing and returns 0.

unix-open

library: unix

module: Unix

file: unix/open.c

compatibility: partial

comment: Only supports filenames handled by Java.

unix-putenv

library: unix

module: Unix

file: unix/putenv.c

compatibility: not implemented

comment: -

unix-readlink

library: unix

module: Unix

file: unix/readlink.c

compatibility: not implemented

comment: -

unix-recv

library: unix

module: Unix

file: unix/sendrecv.c

compatibility: partial

comment: Flags are ignored.

unix-recvfrom

library: unix

module: Unix

file: unix/sendrecv.c

compatibility: partial

comment: Flags are ignored.

unix-select

library: unix

module: Unix

file: unix/select.c

compatibility: partial

comment: Does wait for given time if all descriptor lists are empty (as used by threads to emulate delay).

unix-send

library: unix

module: Unix

file: unix/sendrecv.c

compatibility: partial

comment: Flags are ignored.

unix-sendto

library: unix

module: Unix

file: unix/sendrecv.c

compatibility: partial

comment: Flags are ignored.

unix-set-close-on-exec

library: unix

module: Unix

file: unix/fcntl.c

compatibility: not implemented

comment: -

unix-set-nonblock

library: unix

module: Unix

file: unix/fcntl.c

compatibility: not implemented

comment: -

unix-setgid

library: unix

module: Unix

file: unix/setgid.c

compatibility: partial

comment: Does nothing.

unix-setitimer

library: unix

module: Unix

file: unix/itimer.c

compatibility: partial

comment: All three timers are based on real time.

unix-setsid

library: unix

module: Unix

file: unix/setsid.c

compatibility: not implemented

comment: -

unix-setsockopt-bool

library: unix

module: Unix

file: unix/sockopt.c

compatibility: partial

comment: Only supports SO-KEEPALIVE, SO-REUSEADDR, SO-OOBINLINE and SO-BROADCAST. Does not support SO-ACCEPTCONN, SO-DONTROUTE, SO-DEBUG.

unix-setsockopt-float

library: unix

module: Unix

file: unix/sockopt.c

compatibility: partial

comment: No supported option.

unix-setsockopt-int

library: unix

module: Unix

file: unix/sockopt.c

compatibility: partial

comment: Only supports SO-SNDBUF and SO-RCVBUF. Does not support SO-ERROR, SO-TYPE, SO-RCVLOWAT, SO-SNDLOWAT.

unix-setuid

library: unix

module: Unix

file: unix/setuid.c

compatibility: partial

comment: Does nothing.

unix-single-write

library: unix

module: Unix

file: unix/write.c

compatibility: partial

comment: Exact synonym of [unix-write](#).

unix-socket

library: unix

module: Unix

file: unix/socket.c

compatibility: partial

comment: Does not support PF-UNIX domain. Does only support SOCK-STREAM and SOCK-DGRAM.
Protocol is ignored.

unix-socketpair

library: unix

module: Unix

file: unix/socketpair.c

compatibility: not implemented

comment: -

unix-stat

library: unix

module: Unix

file: unix/stat.c

compatibility: partial

comment: The following restrictions apply to data accuracy: device number, inode number, number of links and device minor number are set to zero; both user and group ID are set to one; file kind is set to one if it is a directory, to zero otherwise; access, modification and status change time are set to modification time; and permissions for group and others are set to user permissions.

unix-stat-64

library: unix

module: Unix

file: unix/stat.c

compatibility: partial

comment: The restrictions of [unix-stat](#) apply.

unix-symlink

library: unix

module: Unix

file: unix/symlink.c

compatibility: partial

comment: Emulation by unix executable, if enabled and available.

unix-tcdrain

library: unix

module: Unix

file: unix/termios.c

compatibility: not implemented

comment: -

unix-tcflow

library: unix

module: Unix

file: unix/termios.c

compatibility: not implemented

comment: -

unix-tcflush

library: unix

module: Unix

file: unix/termios.c

compatibility: not implemented

comment: -

unix-tcgetattr

library: unix

module: Unix

file: unix/termios.c

compatibility: not implemented

comment: -

unix-tcsendbreak

library: unix

module: Unix

file: unix/termios.c

compatibility: not implemented

comment: -

unix-tcsetattr

library: unix

module: Unix

file: unix/termios.c

compatibility: not implemented

comment: -

unix-times**library:** unix**module:** Unix**file:** unix/times.c**compatibility:** partial**comment:** In the returned record, `tms-utime` field is set to the time elapsed since execution start (*cf.* [Sys.time](#)), other fields are set to zero (equivalent to Win32 implementation).**unix-umask****library:** unix**module:** Unix**file:** unix/umask.c**compatibility:** not implemented**comment:** -**unix-utimes****library:** unix**module:** Unix**file:** unix/utimes.c**compatibility:** partial**comment:** Only sets modification time.**unix-wait****library:** unix**module:** Unix**file:** unix/wait.c**compatibility:** not implemented**comment:** -

unix-waitpid

library: unix

module: Unix

file: unix/wait.c

compatibility: not implemented

comment: -

List of primitives per compatibility level

full

add-nat

blit-nat

caml-abs-float

caml-acos-float

caml-add-float

caml-alloc-dummy

caml-alloc-dummy-float

caml-array-get

caml-array-get-addr

caml-array-get-float

caml-array-set

caml-array-set-addr

caml-array-set-float

caml-array-unsafe-get

caml-array-unsafe-get-float

caml-array-unsafe-set

caml-array-unsafe-set-addr

caml-array-unsafe-set-float

caml-asin-float

caml-atan2-float

caml-atan-float

caml-ba-blit

caml-ba-create

caml-ba-dim

caml-ba-fill

caml-ba-get-1

caml-ba-get-2

caml-ba-get-3

caml-ba-get-generic

caml-ba-init

caml-ba-kind

caml-ba-layout

caml-ba-map-file

caml-ba-num-dims

caml-ba-reshape
caml-ba-set-1
caml-ba-set-2
caml-ba-set-3
caml-ba-set-generic
caml-ba-slice
caml-ba-sub
caml-backtrace-status
caml-bitvect-test
caml-blit-string
caml-ceil-float
caml-channel-descriptor
caml-classify-float
caml-compare
caml-condition-broadcast
caml-condition-new
caml-condition-signal
caml-condition-wait
caml-cos-float
caml-cosh-float
caml-create-string
caml-dbm-close
caml-dbm-delete
caml-dbm-fetch
caml-dbm-firstkey
caml-dbm-insert
caml-dbm-nextkey
caml-dbm-open
caml-dbm-replace
caml-div-float
caml-dynlink-add-primitive
[caml-dynlink-close-lib](#)
caml-dynlink-get-current-libs
caml-ensure-stack-capacity
caml-eq-float
caml-equal
caml-exp-float
caml-fill-string
caml-final-register
caml-final-release
caml-float-compare
caml-float-of-int
caml-float-of-string
caml-floor-float
caml-fmod-float
caml-format-float
caml-format-int
caml-frexp-float

caml-gc-get
caml-ge-float
caml-get-current-environment
caml-get-exception-backtrace
caml-get-global-data
caml-get-public-method
caml-get-section-table
caml-gr-blit-image
caml-gr-clear-graph
caml-gr-close-graph
caml-gr-create-image
caml-gr-current-x
caml-gr-current-y
caml-gr-display-mode
caml-gr-draw-arc
caml-gr-draw-char
caml-gr-draw-image
caml-gr-draw-rect
caml-gr-draw-string
caml-gr-dump-image
caml-gr-fill-arc
caml-gr-fill-poly
caml-gr-fill-rect
caml-gr-lineto
caml-gr-make-image
caml-gr-moveto
caml-gr-open-graph
caml-gr-plot
caml-gr-point-color
caml-gr-remember-mode
caml-gr-resize-window
caml-gr-set-color
[caml-gr-set-font](#)
caml-gr-set-line-width
caml-gr-set-text-size
caml-gr-set-window-title
caml-gr-sigio-handler
caml-gr-sigio-signal
caml-gr-size-x
caml-gr-size-y
caml-gr-sound
caml-gr-synchronize
caml-gr-text-size
caml-gr-wait-event
caml-gr-window-id
caml-greaterequal
caml-greaterthan
caml-gt-float

caml-hash-univ-param
caml-input-value
caml-input-value-from-string
[caml-install-signal-handler](#)
caml-int32-add
caml-int32-and
caml-int32-bits-of-float
caml-int32-compare
caml-int32-div
caml-int32-float-of-bits
caml-int32-format
caml-int32-mod
caml-int32-mul
caml-int32-neg
caml-int32-of-float
caml-int32-of-int
caml-int32-of-string
caml-int32-or
caml-int32-shift-left
caml-int32-shift-right
caml-int32-shift-right-unsigned
caml-int32-sub
caml-int32-to-float
caml-int32-to-int
caml-int32-xor
caml-int64-add
caml-int64-and
caml-int64-bits-of-float
caml-int64-compare
caml-int64-div
caml-int64-float-of-bits
caml-int64-format
caml-int64-mod
caml-int64-mul
caml-int64-neg
caml-int64-of-float
caml-int64-of-int
caml-int64-of-int32
caml-int64-of-nativeint
caml-int64-of-string
caml-int64-or
caml-int64-shift-left
caml-int64-shift-right
caml-int64-shift-right-unsigned
caml-int64-sub
caml-int64-to-float
caml-int64-to-int
caml-int64-to-int32

caml-int64-to-nativeint
caml-int64-xor
caml-int-compare
caml-int-of-float
caml-int-of-string
caml-invoke-traced-function
[caml-is-printable](#)
caml-lazy-follow-forward
caml-lazy-make-forward
caml-ldexp-float
caml-le-float
caml-lessequal
caml-lessthan
caml-lex-engine
caml-log10-float
caml-log-float
caml-lt-float
caml-make-array
caml-make-vect
caml-marshal-data-size
[caml-md5-chan](#)
[caml-md5-string](#)
caml-ml-channel-size
caml-ml-channel-size-64
caml-ml-close-channel
caml-ml-flush
[caml-ml-flush-partial](#)
caml-ml-input
caml-ml-input-char
caml-ml-input-int
caml-ml-input-scan-line
caml-ml-open-descriptor-in
caml-ml-open-descriptor-out
caml-ml-out-channels-list
caml-ml-output
caml-ml-output-char
caml-ml-output-int
[caml-ml-output-partial](#)
caml-ml-pos-in
caml-ml-pos-in-64
caml-ml-pos-out
caml-ml-pos-out-64
caml-ml-peek-in
caml-ml-peek-in-64
caml-ml-peek-out
caml-ml-peek-out-64
[caml-ml-set-binary-mode](#)
caml-ml-string-length

caml-modf-float
caml-mul-float
caml-mutex-lock
caml-mutex-new
caml-mutex-try-lock
caml-mutex-unlock
caml-nativeint-add
caml-nativeint-and
caml-nativeint-compare
caml-nativeint-div
caml-nativeint-format
caml-nativeint-mod
caml-nativeint-mul
caml-nativeint-neg
caml-nativeint-of-float
caml-nativeint-of-int
caml-nativeint-of-int32
caml-nativeint-of-string
caml-nativeint-or
caml-nativeint-shift-left
caml-nativeint-shift-right
caml-nativeint-shift-right-unsigned
caml-nativeint-sub
caml-nativeint-to-float
caml-nativeint-to-int
caml-nativeint-to-int32
caml-nativeint-xor
caml-neg-float
caml-neq-float
caml-new-lex-engine
caml-notequal
caml-obj-add-offset
caml-obj-block
caml-obj-dup
caml-obj-is-block
caml-obj-tag
caml-obj-truncate
caml-output-value
caml-output-value-to-buffer
caml-output-value-to-string
caml-parse-engine
caml-power-float
caml-realloc-global
caml-record-backtrace
caml-register-named-value
caml-reify-bytecode
caml-set-parser-trace
caml-sin-float

caml-sinh-float
caml-sqrt-float
[caml-static-free](#)
[caml-static-release-bytecode](#)
caml-string-compare
caml-string-equal
caml-string-get
caml-string-greaterequal
caml-string-greaterthan
caml-string-lessequal
caml-string-lessthan
caml-string-notequal
caml-string-set
caml-sub-float
caml-sys-chdir
caml-sys-close
[caml-sys-exit](#)
caml-sys-file-exists
[caml-sys-get-argv](#)
[caml-sys-get-config](#)
caml-sys-getcwd
caml-sys-getenv
caml-sys-is-directory
[caml-sys-random-seed](#)
caml-sys-read-directory
caml-sys-remove
caml-sys-rename
caml-sys-system-command
[caml-sys-time](#)
caml-tan-float
caml-tanh-float
[caml-terminfo-backup](#)
[caml-terminfo-resume](#)
[caml-terminfo-setup](#)
[caml-terminfo-standout](#)
caml-thread-exit
caml-thread-id
caml-thread-initialize
caml-thread-join
caml-thread-new
caml-thread-self
caml-thread-sigmask
caml-thread-uncaught-exception
caml-thread-yield
caml-update-dummy
caml-wait-signal
caml-weak-blit
caml-weak-check

caml-weak-create
caml-weak-get
caml-weak-get-copy
caml-weak-set
camltk-add-timer
camltk-doonevent
camltk-finalize
camltk-getingdata
camltk-getvar
camltk-init
camltk-opentk
camltk-rem-file-input
camltk-rem-timer
camltk-return
camltk-setingdata-bytecode
camltk-setingdata-native
camltk-setvar
camltk-splitlist
camltk-tcl-direct-eval
camltk-tcl-eval
camltk-tk-mainloop
camltk-trace-var
camltk-untrace-var
camltk-wait-des
camltk-wait-vis
camlzip-deflateEnd
camlzip-deflateInit
[camlzip-deflate-bytecode](#)
camlzip-inflateEnd
camlzip-inflateInit
[camlzip-inflate-bytecode](#)
camlzip-update-crc32
compare-digits-nat
compare-nat
complement-nat
create-nat
decr-nat
div-digit-nat
div-nat
incr-nat
initialize-nat
is-digit-int
is-digit-normalized
is-digit-odd
is-digit-zero
land-digit-nat
length-nat
lor-digit-nat

lxor-digit-nat
mult-digit-nat
mult-nat
nth-digit-nat
nth-digit-nat-native
num-digits-nat
num-leading-zero-bits-in-digit
re-partial-match
re-replacement-text
re-search-backward
re-search-forward
re-string-match
set-digit-nat
set-digit-nat-native
set-to-zero-nat
shift-left-nat
shift-right-nat
square-nat
sub-nat
thread-delay
thread-id
[thread-inchan-ready](#)
thread-initialize
thread-initialize-preemption
thread-join
thread-kill
thread-new
[thread-outchan-ready](#)
thread-request-reschedule
thread-select
thread-self
thread-sleep
thread-uncaught-exception
thread-wait-read
thread-wait-timed-read
thread-wait-timed-write
thread-wait-write
thread-wakeup
thread-yield
unix-accept
unix-access
unix-alarm
unix-bind
unix-chdir
unix-close
unix-closedir
unix-connect
unix-dup

unix-dup2
unix-environment
unix-exit
unix-ftruncate
unix-ftruncate-64
unix-getcwd
[unix-gethostbyaddr](#)
[unix-gethostbyname](#)
unix-gethostname
unix-getitimer
unix-getlogin
unix-getpeername
unix-getsockname
unix-gettimeofday
unix-gmtime
[unix-inet-addr-of-string](#)
unix-listen
unix-localtime
unix-lseek
unix-lseek-64
[unix-mkfifo](#)
unix-mktime
unix-opendir
unix-pipe
unix-read
unix-readdir
unix-rename
unix-rewinddir
unix-rmdir
unix-setsockopt-optint
unix-shutdown
unix-sigpending
unix-sigprocmask
unix-sigsuspend
unix-sleep
unix-string-of-inet-addr
unix-time
unix-truncate
unix-truncate-64
unix-unlink
unix-write

partial

[caml-dynlink-lookup-symbol](#)
[caml-dynlink-open-lib](#)
[caml-gc-compaction](#)

caml-gc-counters
caml-gc-full-major
caml-gc-major
caml-gc-major-slice
caml-gc-minor
caml-gc-quick-stat
caml-gc-set
caml-gc-stat
caml-gr-close-subwindow
caml-gr-open-subwindow
caml-obj-set-tag
caml-static-alloc
caml-static-resize
caml-sys-open
camltk-add-file-input
camltk-add-file-output
camltk-rem-file-output
thread-wait-pid
unix-chmod
unix-chown
unix-chroot
unix-error-message
unix-execv
unix-execve
unix-execvp
unix-execvpe
unix-getegid
unix-geteuid
unix-getgid
unix-getgrgid
unix-getgrnam
unix-getprotobyname
unix-getprotobynumber
unix-getpwnam
unix-getpwuid
unix-getservbyname
unix-getservbyport
unix-getsockopt
unix-getuid
unix-isatty
unix-kill
unix-link
unix-lstat
unix-lstat-64
unix-mkdir
unix-nice
unix-open
unix-recv

unix-recvfrom
unix-select
unix-send
unix-sendto
unix-setgid
unix-setitimer
unix-setsockopt-bool
unix-setsockopt-float
unix-setsockopt-int
unix-setuid
unix-single-write
unix-socket
unix-stat
unix-stat-64
unix-symlink
unix-times
unix-utimes

not implemented

unix-clear-close-on-exec
unix-clear-nonblock
unix-fchmod
unix-fchown
unix-fork
unix-fstat
unix-fstat-64
unix-getaddrinfo
unix-getgroups
unix-getnameinfo
unix-getpid
unix-getppid
unix-lockf
unix-putenv
unix-readlink
unix-set-close-on-exec
unix-set-nonblock
unix-setsid
unix-socketpair
unix-tcdrain
unix-tcflow
unix-tcflush
unix-tcgetattr
unix-tcsendbreak
unix-tcsetattr
unix-umask
unix-wait

unix-waitpid