

# Cadmium — Primitives compatibility

Document version: 1.3

<http://cadmium.x9c.fr>

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**Abstract:** This document indicates the compatibility of Cadmium (version 1.3) with the reference Caml<sup>1</sup> implementation in its “3.11.1” 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.

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<sup>1</sup>The official Caml website can be reached at [caml.inria.fr](http://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).

<b>primitive</b>	<b>library</b>	<b>module</b>	<b>compatibility</b>
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
<a href="#">caml-terminfo-backup</a>	[runtime]	[runtime]	full
<a href="#">caml-terminfo-resume</a>	[runtime]	[runtime]	full
<a href="#">caml-terminfo-setup</a>	[runtime]	[runtime]	full
<a href="#">caml-terminfo-standout</a>	[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

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<b>primitive</b>	<b>library</b>	<b>module</b>	<b>compatibility</b>
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
<a href="#">caml-gr-set-font</a>	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
<a href="#">caml-gr-close-subwindow</a>	graph	GraphicsX11	partial
<a href="#">caml-gr-open-subwindow</a>	graph	GraphicsX11	partial
<a href="#">camltk-add-file-input</a>	labltk	Tk	partial
<a href="#">camltk-add-file-output</a>	labltk	Tk	partial
camltk-add-timer	labltk	Tk	full

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<b>primitive</b>	<b>library</b>	<b>module</b>	<b>compatibility</b>
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
<a href="#">camltk-rem-file-output</a>	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

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<b>primitive</b>	<b>library</b>	<b>module</b>	<b>compatibility</b>
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
<a href="#">caml-md5-chan</a>	stdlib	Digest	full
<a href="#">caml-md5-string</a>	stdlib	Digest	full
caml-dynlink-add-primitive	stdlib	Dynlink	full
<a href="#">caml-dynlink-close-lib</a>	stdlib	Dynlink	full
caml-dynlink-get-current-libs	stdlib	Dynlink	full
<a href="#">caml-dynlink-lookup-symbol</a>	stdlib	Dynlink	partial
<a href="#">caml-dynlink-open-lib</a>	stdlib	Dynlink	partial
caml-final-register	stdlib	Gc	full
caml-final-release	stdlib	Gc	full
<a href="#">caml-gc-compaction</a>	stdlib	Gc	partial
<a href="#">caml-gc-counters</a>	stdlib	Gc	partial
<a href="#">caml-gc-full-major</a>	stdlib	Gc	partial
caml-gc-get	stdlib	Gc	full
<a href="#">caml-gc-major</a>	stdlib	Gc	partial
<a href="#">caml-gc-major-slice</a>	stdlib	Gc	partial
<a href="#">caml-gc-minor</a>	stdlib	Gc	partial
<a href="#">caml-gc-quick-stat</a>	stdlib	Gc	partial
<a href="#">caml-gc-set</a>	stdlib	Gc	partial
<a href="#">caml-gc-stat</a>	stdlib	Gc	partial

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<b>primitive</b>	<b>library</b>	<b>module</b>	<b>compatibility</b>
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

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<b>primitive</b>	<b>library</b>	<b>module</b>	<b>compatibility</b>
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-block	stdlib	Obj	full
caml-obj-dup	stdlib	Obj	full
caml-obj-is-block	stdlib	Obj	full
<a href="#">caml-obj-set-tag</a>	stdlib	Obj	partial
caml-obj-tag	stdlib	Obj	full
caml-obj-truncate	stdlib	Obj	full
<a href="#">caml-static-alloc</a>	stdlib	Obj	partial

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<b>primitive</b>	<b>library</b>	<b>module</b>	<b>compatibility</b>
<a href="#">caml-static-free</a>	stdlib	Obj	full
<a href="#">caml-static-release-bytecode</a>	stdlib	Obj	full
<a href="#">caml-static-resize</a>	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
caml-lt-float	stdlib	Pervasives	full

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<b>primitive</b>	<b>library</b>	<b>module</b>	<b>compatibility</b>
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
<a href="#">caml-ml-flush-partial</a>	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
<a href="#">caml-ml-output-partial</a>	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
<a href="#">caml-ml-set-binary-mode</a>	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
caml-create-string	stdlib	String	full

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<b>primitive</b>	<b>library</b>	<b>module</b>	<b>compatibility</b>
caml-fill-string	stdlib	String	full
<a href="#">caml-is-printable</a>	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
<a href="#">caml-install-signal-handler</a>	stdlib	Sys	full
caml-sys-chdir	stdlib	Sys	full
caml-sys-close	stdlib	Sys	full
<a href="#">caml-sys-exit</a>	stdlib	Sys	full
caml-sys-file-exists	stdlib	Sys	full
<a href="#">caml-sys-get-argv</a>	stdlib	Sys	full
<a href="#">caml-sys-get-config</a>	stdlib	Sys	full
caml-sys-getcwd	stdlib	Sys	full
caml-sys-getenv	stdlib	Sys	full
caml-sys-is-directory	stdlib	Sys	full
<a href="#">caml-sys-open</a>	stdlib	Sys	partial
<a href="#">caml-sys-random-seed</a>	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
<a href="#">caml-sys-time</a>	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
caml-condition-signal	systhreads	Condition	full

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<b>primitive</b>	<b>library</b>	<b>module</b>	<b>compatibility</b>
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
<a href="#">thread-inchan-ready</a>	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
<a href="#">thread-outchan-ready</a>	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
<a href="#">thread-wait-pid</a>	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
<a href="#">unix-chmod</a>	unix	Unix	partial
<a href="#">unix-chown</a>	unix	Unix	partial

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<b>primitive</b>	<b>library</b>	<b>module</b>	<b>compatibility</b>
<a href="#">unix-chroot</a>	unix	Unix	partial
<a href="#">unix-clear-close-on-exec</a>	unix	Unix	not implemented
<a href="#">unix-clear-nonblock</a>	unix	Unix	not implemented
<a href="#">unix-close</a>	unix	Unix	full
<a href="#">unix-closedir</a>	unix	Unix	full
<a href="#">unix-connect</a>	unix	Unix	full
<a href="#">unix-dup</a>	unix	Unix	full
<a href="#">unix-dup2</a>	unix	Unix	full
<a href="#">unix-environment</a>	unix	Unix	full
<a href="#">unix-error-message</a>	unix	Unix	partial
<a href="#">unix-execv</a>	unix	Unix	partial
<a href="#">unix-execve</a>	unix	Unix	partial
<a href="#">unix-execvp</a>	unix	Unix	partial
<a href="#">unix-execvpe</a>	unix	Unix	partial
<a href="#">unix-exit</a>	unix	Unix	full
<a href="#">unix-fchmod</a>	unix	Unix	not implemented
<a href="#">unix-fchown</a>	unix	Unix	not implemented
<a href="#">unix-fork</a>	unix	Unix	not implemented
<a href="#">unix-fstat</a>	unix	Unix	not implemented
<a href="#">unix-fstat-64</a>	unix	Unix	not implemented
<a href="#">unix-ftruncate</a>	unix	Unix	full
<a href="#">unix-ftruncate-64</a>	unix	Unix	full
<a href="#">unix-getaddrinfo</a>	unix	Unix	not implemented
<a href="#">unix-getcwd</a>	unix	Unix	full
<a href="#">unix-getegid</a>	unix	Unix	partial
<a href="#">unix-geteuid</a>	unix	Unix	partial
<a href="#">unix-getgid</a>	unix	Unix	partial
<a href="#">unix-getgrgid</a>	unix	Unix	partial
<a href="#">unix-getgrnam</a>	unix	Unix	partial
<a href="#">unix-getgroups</a>	unix	Unix	not implemented
<a href="#">unix-gethostbyaddr</a>	unix	Unix	full
<a href="#">unix-gethostbyname</a>	unix	Unix	full
<a href="#">unix-gethostname</a>	unix	Unix	full
<a href="#">unix-getitimer</a>	unix	Unix	full
<a href="#">unix-getlogin</a>	unix	Unix	full
<a href="#">unix-getnameinfo</a>	unix	Unix	not implemented
<a href="#">unix-getpeername</a>	unix	Unix	full
<a href="#">unix-getpid</a>	unix	Unix	not implemented
<a href="#">unix-getppid</a>	unix	Unix	not implemented
<a href="#">unix-getprotobyname</a>	unix	Unix	partial
<a href="#">unix-getprotobynumber</a>	unix	Unix	partial
<a href="#">unix-getpwnam</a>	unix	Unix	partial
<a href="#">unix-getpwuid</a>	unix	Unix	partial

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

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<b>primitive</b>	<b>library</b>	<b>module</b>	<b>compatibility</b>
<a href="#">unix-setsockopt-float</a>	unix	Unix	partial
<a href="#">unix-setsockopt-int</a>	unix	Unix	partial
unix-setsockopt-optint	unix	Unix	full
<a href="#">unix-setuid</a>	unix	Unix	partial
unix-shutdown	unix	Unix	full
unix-sigpending	unix	Unix	full
unix-sigprocmask	unix	Unix	full
unix-sigsuspend	unix	Unix	full
<a href="#">unix-single-write</a>	unix	Unix	partial
unix-sleep	unix	Unix	full
<a href="#">unix-socket</a>	unix	Unix	partial
<a href="#">unix-socketpair</a>	unix	Unix	not implemented
<a href="#">unix-stat</a>	unix	Unix	partial
<a href="#">unix-stat-64</a>	unix	Unix	partial
unix-string-of-inet-addr	unix	Unix	full
<a href="#">unix-symlink</a>	unix	Unix	partial
<a href="#">unix-tcdrain</a>	unix	Unix	not implemented
<a href="#">unix-tcflow</a>	unix	Unix	not implemented
<a href="#">unix-tcflush</a>	unix	Unix	not implemented
<a href="#">unix-tcgetattr</a>	unix	Unix	not implemented
<a href="#">unix-tcsendbreak</a>	unix	Unix	not implemented
<a href="#">unix-tcsetattr</a>	unix	Unix	not implemented
unix-time	unix	Unix	full
<a href="#">unix-times</a>	unix	Unix	partial
unix-truncate	unix	Unix	full
unix-truncate-64	unix	Unix	full
<a href="#">unix-umask</a>	unix	Unix	not implemented
unix-unlink	unix	Unix	full
<a href="#">unix-utimes</a>	unix	Unix	partial
<a href="#">unix-wait</a>	unix	Unix	not implemented
<a href="#">unix-waitpid</a>	unix	Unix	not implemented
unix-write	unix	Unix	full
camlzip-deflateEnd	zip	Zlib	full
camlzip-deflateInit	zip	Zlib	full
<a href="#">camlzip-deflate-bytecode</a>	zip	Zlib	full
camlzip-inflateEnd	zip	Zlib	full
camlzip-inflateInit	zip	Zlib	full
<a href="#">camlzip-inflate-bytecode</a>	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-marshall-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-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-dooneevent  
camltk-finalize  
camltk-getimgdata  
camltk-getvar  
camltk-init  
camltk-opentk  
camltk-rem-file-input  
camltk-rem-timer  
camltk-return  
camltk-setimgdata-bytecode  
camltk-setimgdata-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

