

# Chez Scheme Version 7.0a Release Notes

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## 1. Overview

This document outlines the changes made to *Chez Scheme* for Version 7.0a since Version 7.0. Version 7.0a is available for the following platforms:

- Intel 80x86 Linux
- Intel 80x86 Linux, threaded
- Intel 80x86 Windows 95/98/ME/NT/2000/XP
- Intel 80x86 Windows 95/98/ME/NT/2000/XP, threaded
- Apple PowerPC Mac OS X
- Sun Sparc Solaris, 32-bit
- Sun Sparc Solaris, 32-bit threaded
- Sun Sparc Solaris, 64-bit
- Sun Sparc Solaris, 64-bit threaded

This document contains three sections describing significant (1) functionality changes, (2) bugs fixed, and (3) performance enhancements. A version number listed in parentheses in the header for a change indicates the first minor release or internal prerelease to support the change.

More information on *Chez Scheme* and *Petite Chez Scheme* can be found at <http://www.scheme.com>, and extensive documentation is available in *The Scheme Programming Language, 3rd edition* and the *Chez Scheme Version 7 User's Guide*.

## 2. Functionality Changes

### 2.1. Universal foreign-callable support (7.0a)

Support for `foreign-callable` in Version 7.0 and prior releases was limited to the Intel Windows and Linux environments (threaded and nonthreaded). `foreign-callable` is now supported for the threaded and nonthreaded Solaris (32- and 64 bit) and PowerPC MacOS X.

### 2.2. new command-line parameter (7.0a)

The existing `command-line-arguments` parameter is set to a list of the command-line arguments by the default value of the `scheme-script` parameter whenever a Scheme shell script is run. The new `command-line` is similar, but is set to include as well the name of the script as the first element. Thus, `(car (command-line))` can be used to determine the script, and `(cdr (command-line))` can be used to determine the command-line arguments.

### 2.3. Socket example (7.0a)

The socket example found in `examples/socket.ss` in the release directory has been made more robust. The updated code also appears in the *Chez Scheme Version 7 User's Guide*.

## 3. Bug Fixes

### 3.1. Logical test operations (7.0a)

A bug in the optimizer's treatment of `logtest`, `logbit?`, `fxlogtest`, and `fxlogbit?`, which caused it to treat their return values as always true in test contexts, has been fixed. [This bug dated back to Version 6.9d.]

### 3.2. Format “\$” bug (7.0a)

A bug that caused `format` to reject exact real numbers has been fixed, and `format` also now produces a more appropriate error message when passed a non-real number. [This bug dated back to Version 6.9b.]

### 3.3. `thread?` for nonthreaded versions (7.0a)

The `thread?` procedure, like other threading procedures, is no longer defined in the nonthreaded versions of the system. [This bug dated back to Version 6.5.]

## 4. Performance Enhancements

### 4.1. `foreign-callable` for nonthreaded versions (7.0a)

The speed of a call into Scheme via `foreign-callable` has been improved slightly for nonthreaded versions of the system. The difference is likely to be noticeable only for calls to Scheme procedures that execute quickly.