

Publications related to Chez Scheme

- [1] R. Kent Dybvig. Syntactic abstraction: the syntax-case expander. In Andy Oram and Greg Wilson, editors, *Beautiful Code: Leading Programmers Explain How They Think*, chapter 25, 407–428. O’Reilly and Associates, June 2007. Provides a description and examples of the syntax-case expansion algorithm
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- [2] R. Kent Dybvig. The development of Chez Scheme. In *Proceedings of the Eleventh ACM SIGPLAN International Conference on Functional Programming*, 1–12, September 2006. A brief history of Chez Scheme’s development
full text: <http://www.cs.indiana.edu/~dyb/pubs/hocs.pdf>.
abstract: <http://www.cs.indiana.edu/~dyb/pubs/hocs-abstract.html>.
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- [3] R. Kent Dybvig. *Chez Scheme Version 7 User’s Guide*. Cadence Research Systems, 2005. User’s guide and reference manual for Chez Scheme Version 7. Complements [5].
full text: <http://www.scheme.com/csug7/>.
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- [4] Oscar Waddell, Dipanwita Sarkar, and R. Kent Dybvig. Fixing letrec: A faithful yet efficient implementation of Scheme’s recursive binding construct. *Higher-order and symbolic computation*, 18(3/4):299–326, 2005. Describes how Chez Scheme handles `letrec` expressions efficiently and with full enforcement of the revised report’s restriction preventing evaluation of left-hand-side variable references and assignments before the right-hand sides have been evaluated.
full text: <http://www.cs.indiana.edu/~dyb/pubs/fixing-letrec.pdf>.
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full text: <http://www.scheme.com/tspl3/>.
bibtex: <http://www.cs.indiana.edu/~dyb/pubs/tspl3.bib>
- [6] Oscar Waddell and R. Kent Dybvig. Extending the scope of syntactic abstraction. In *Conference Record of the Twenty Sixth Annual ACM Symposium on Principles of Programming Languages*, 203–213, January 1999. Describes the Chez Scheme module system and its interaction with the syntax-case expander.
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- [8] Robert G. Burger and R. Kent Dybvig. An infrastructure for profile-driven dynamic recompilation. In *Proceedings of the IEEE Computer Society 1998 International Conference on Computer Languages*, 240–251, May 1998. Describes support for dynamic recompilation based on information gathered by an edge-count profiler. Only the profiling support is implemented in Chez Scheme.
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- [9] Oscar Waddell and R. Kent Dybvig. Fast and effective procedure inlining. In *Proceedings of the Fourth International Symposium on Static Analysis*, volume 1302 of *Lecture Notes in Computer Science*, 35–52. Springer-Verlag, September 1997. Describes a source optimization pass used in Chez Scheme to perform several optimizations, including procedure inlining.
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- [11] Carl Bruggeman, Oscar Waddell, and R. Kent Dybvig. Representing control in the presence of one-shot continuations. In *Proceedings of the SIGPLAN '96 Conference on Programming Language Design and Implementation*, 99–107, May 1996. Describes the implementation of call/cc.
full text: <http://www.cs.indiana.edu/~dyb/pubs/call1cc.pdf>.
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- [12] Robert G. Burger and R. Kent Dybvig. Printing floating-point numbers quickly and accurately. In *Proceedings of the SIGPLAN '96 Conference on Programming Language Design and Implementation*, 108–116, May 1996. Describes an algorithm for printing floating point numbers accurately yet with the minimum number of digits.
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full text: <http://www.cs.indiana.edu/~dyb/pubs/LaSC-5-4-pp295-326.pdf>.
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- [20] R. Kent Dybvig. Writing hygienic macros in Scheme with `syntax-case`. Technical Report 356, Indiana Computer Science Department, June 1992. Introduces the `syntax-case` macro system through a series of examples. Some overlap with [18].
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full text: <http://www.cs.indiana.edu/~dyb/pubs/LaSC-3-3-pp229-244.pdf>.
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