



# Adding external iterators to an existing Eiffel class library

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## F Implementation of ITERATOR for LINKED\_LISTS.

```
class ITERATOR_ON_LINKED_LIST[E] inherit ITERATOR[E];
creation make
feature {NONE}
  linked_list: LINKED_LIST[E]; -- The list to traverse.
  current_link: LINK[E]; -- Memorize the current item position.
feature
  make(ll: LINKED_LIST[E]) is
    require
      ll /= Void
    do
      linked_list := ll;
      current_link := linked_list.first_link;
    ensure
      linked_list = ll
    end;
  start is
    do current_link := linked_list.first_link; end;
  is_off: BOOLEAN is
    do Result := current_link = Void; end;
  item: E is
    do Result := current_link.item; end;
  next is
    do current_link := current_link.next; end;
end
```

## References

- [Arn97] Franck Arnaud. Pylon: a foundation library. URL: <http://www.altsoft.demon.co.uk/doc/pylon.html>, 1997.
- [Bez97] Eric Bezault. Gobo Eiffel Structure Library. URL: <http://gobosoft.com/eiffel/gobo/structure/index.html>, 1997.
- [CZ99] Dominique Colnet and Olivier Zendra. Optimizations of Eiffel programs: SmallEiffel, The GNU Eiffel Compiler. In *29th conference on Technology of Object-Oriented Languages and Systems (TOOLS Europe'99)*, pages 341–350. IEEE Computer Society, June 1999.
- [Eng99] Interactive Software Engineering. EiffelBase library. URL: <http://eiffel.com/products/base/classes/base.html>, 1999.
- [GHJV94] Erich Gamma, Richard Helm, Ralph Johnson, and John Vlissides. *Design Patterns: Elements of Reusable Object-Oriented Software*. Addison Wesley, 1994.
- [Gor96] Jacob Gore. *Object Structures : Building Object-Oriented Software Components With Eiffel*. Eiffel in Practice Series. Addison Wesley, 1996.
- [GR83] A. Goldberg and D. Robson. *Smalltalk-80, the Language and its Implementation*. Addison Wesley, 1983.
- [JGS96] Bill Joy James Gosling and Guy Steele. *The Java Language Specification*. Addison Wesley, 1996.
- [Mey94a] Bertrand Meyer. *Eiffel, The Language*. Prentice Hall, 1994.
- [Mey94b] Bertrand Meyer. *Reusable Software : The Base Object-Oriented Component Libraries*. Prentice Hall, August 1994.
- [ZCC97] Olivier Zendra, Dominique Colnet, and Suzanne Collin. Efficient Dynamic Dispatch without Virtual Function Tables. The SmallEiffel Compiler. In *12th Annual ACM SIGPLAN Conference on Object-Oriented Programming Systems, Languages and Applications (OOPSLA'97)*, volume 32, pages 125–141, 1997.