



HAL
open science

Adding external iterators to an existing Eiffel class library

Olivier Zendra, Dominique Colnet

► **To cite this version:**

Olivier Zendra, Dominique Colnet. Adding external iterators to an existing Eiffel class library. 32th conference on Technology of Object-Oriented Languages & Systems - TOOLS Pacific'99, Nov 1999, Melbourne, Australia, pp.188 - 199, 10.1109/TOOLS.1999.809425 . inria-00098784

HAL Id: inria-00098784

<https://hal.inria.fr/inria-00098784>

Submitted on 26 Sep 2006

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

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.