Pictures of Applications Using Garnet

Edited by
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Abstract

This is a collection of pictures of real applications written by Garnet users. You can print just this section of the manual on a color printer to see some dramatic color images.

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1. Some Garnet Applications

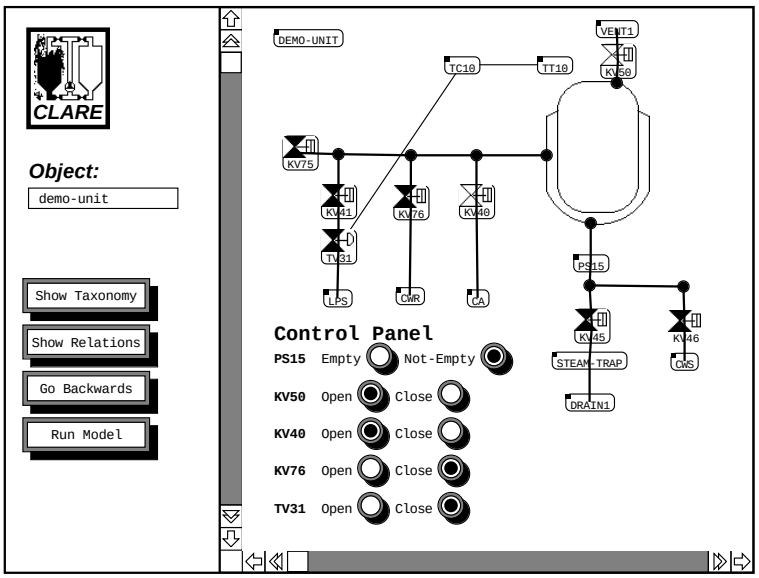
This section presents some examples of applications written using Garnet. As of September 29, 1993, we know of over 50 applications written using Garnet, listed below. If you are using Garnet and you are not in the list, please send mail to `garnet@cs.cmu.edu`. The figures on the following pages show some of the applications. These were generated using the Garnet utility `Opal:make-ps-file`. Many of these figures are in color, so if you have a color printer or postscript previewer, you might try looking at this file in color.

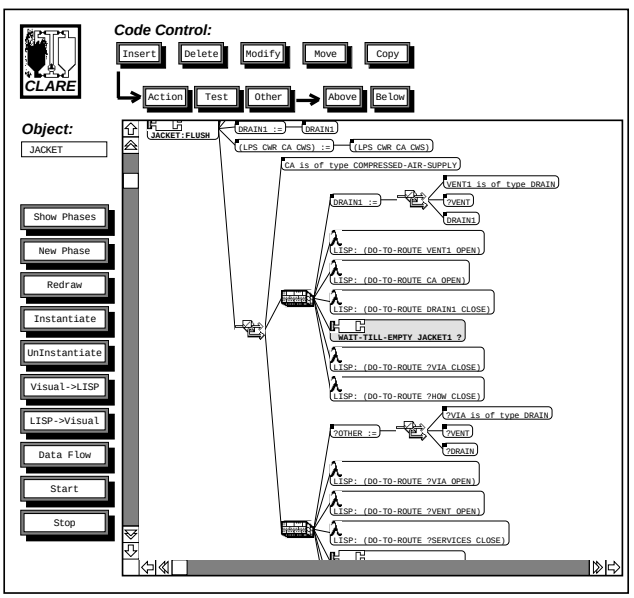
Companies

1. Corporation For Open Systems
   Automated Protocol Analysis/Reference Tool
   Frank J. Wroblewski
2. Design Research Institute (Cornell & Xerox)
   (various)
   Jim Davis
3. Deutches Forschungszentrum fuer Kuenstliche Intelligenz GmbH
   COSMA
   Stephen P. Spackman
4. GE Research and Development Center
   Metallurgical Expert Systems for Manufacturing
   K. J. Meltsner
5. GE Research and Development Center
   SKETCHER
   K. J. Meltsner
6. Hughes AI Center
   NLP Project
   Seth Goldman or Charles Dolan
7. Institute of Knowledge Engineering, Madrid, Spain
   KIISS: Knowledge Interface Interactive Surgery System
   Roberto Moriyon
8. Lawrence Livermore National Lab
   PLANET (Pump Layout ANd Evaluation Tool)
   Tom Canales
9. Microelectronics & Computer Tech. Corp. (MCC)
   Scan: Intelligent Text Retrieval
   Elaine Rich
10. MITRE Corporation
    AIMI (An Intelligent Multimedia Interface)
    John D. Burger
11. National Science Center Foundation
    Learning Logic
    Lawrence Freil
12. PTT Research, Groningen, The Netherlands
    R&D Employee Information Retrieval Service
    Colin Tattersall
13. Rank Xerox EuroPARC
    (various CSCW-related projects)
    Paul Dourish
14. StatSci
    GRAPHICAL-BELIEF
    Russell Almond
15. Transarc Corporation
    Lisp GUI for Encina
    Mark Sherman
16. U S WEST Advanced Technologies
    KBNL natural language system
    Randall Sparks
17. USC/ISI
    Humanoid
    Pedro Szekely
18. USC/ISI
    SHELTER knowledge-based development environ.
    Pedro Szekely

Universities

19. Carnegie Mellon University, CS
    Miro
    J. D. Tygar and J. M. Wing
20. Carnegie Mellon University, CS
    Learning Calendar System
    Conrad Poelman
21. Carnegie Mellon University, CS
    Interactive Fiction Editor
    Merrick Furst
22. Carnegie Mellon University, CS
    Redstone
    Jeff Schlimmer
23. Carnegie Mellon University, CS
    PURSUIT
    Francesmary Modugno
24. Carnegie Mellon University, ERDC
    LOOS
    Ulrich Flemming or Robert Coyne
25. Carnegie Mellon University, Math
    Educational Theorem Proving System
    Peter Andrews
26. Carnegie Mellon University, Psychology
    Soar Graphics Interface
    Frank Ritter
27. Carnegie Mellon University, Robotics
    MICRO-BOSS
    Norman Sadeh
28. Carnegie Mellon University, Robotics
    SAGE Data Visualization
    Steve Roth
29. Georgia Institute of Technology
    KritikTutor (interactive learning environment)
    Andres Gomez de Silva Garza, Nathalie Grue
30. MIT, Dept. of Brain and Cognitive Sciences
    SURF-HIPPO Neuron Simulator
    Lyle J. Borg-Graham
31. MIT, LCS, Computation Structures Group
    Debugging tools for the Id Language
    Steve Glim and R. Paul Johnson
32. New York University, Courant Institute
    COMLEX (Common Lexicon) dictionary project
    R. Grishman, C. Macleod, S. Wolff, and K. Rajan
33. Oregon State University
    Forms/3 (visual language)
    Margaret Burnett
34. Oregon State University, Dept. of CS
    CarGo (Game of Go)
    Peter Dudey
35. State University of New York at Buffalo, CS
    Air Battle Simulation
    Henry Hexmoor
36. State University of New York at Buffalo, CS
    SNePS Graphical UI
    John S. Lewocz
37. Tulane University, CS
    Natural Language Processing
    Robert Goldman
38. Tulane University, CS
    THESEUS
    Raymond Lang
39. Universidad de las Americas-Puebla (Mexico)
    Visual Language
    Miguel Sanchez
40. University College London
    The Cognitive Browser
    Gordon Joly
41. University of Calif. at Santa Barbara, CS & ECE
    Graphical Tools for the Development of Concurrent Systems
    L. Dillon, G. Kutty, P. Melliar-Smith, L. Moser, Y. Ramakrishna
42. University of Chicago, CS
    Shopper (planning and visual navigation)
    Daniel Fu
43. University of Chicago, CS
    SEAL (situation-driven execution and constructivist learning)
    Charles Earl
44. University of Chicago, AI Lab
    Roentgen (case-based aid for radiation therapy)
    Jeff Berger
45. University of Leeds
    Graphical Multi-User Domain Designer
    Roderick J. Williams
46. University of Leeds
    CLARE
    Nikos Drakos
47. University of Leeds
    ADVISOR
    Andrew J. Cole
48. University of Leeds
    PORSCHE
    Colin Tattersall
49. University of Michigan, EE&CS
    Science works: Nuclear Engineering
    K. Abotel, E. Solloway, C. Quintaina, W. Martin
50. University of Queensland, Australia
    Conceptual Modeling CASE tool
    Anthony Berglas
51. University of Queensland, Australia
    Interoperating Network Servers
    Hung Wing
52. University of Saskatchewan
    DISCUS (DIstributed Computing at the U of S)
    Beth Protsko (User Interface only)
53. University of Southern California
    Dynamic Aggregation in Qualitative Simulation
    Nicolas Rouquette
54. University of Southern California
    Revenge: Knowledge-based S/W for (Re)Design-for-Assembly
    Gerard Kim, Dr. George Bekey,
55. University of Washington, CS
    Multi-Garnet
    Michael Sannella
56. University of Washington, CS
    Electronic Encyclopedia Exploratorium
    Mike Salisbury





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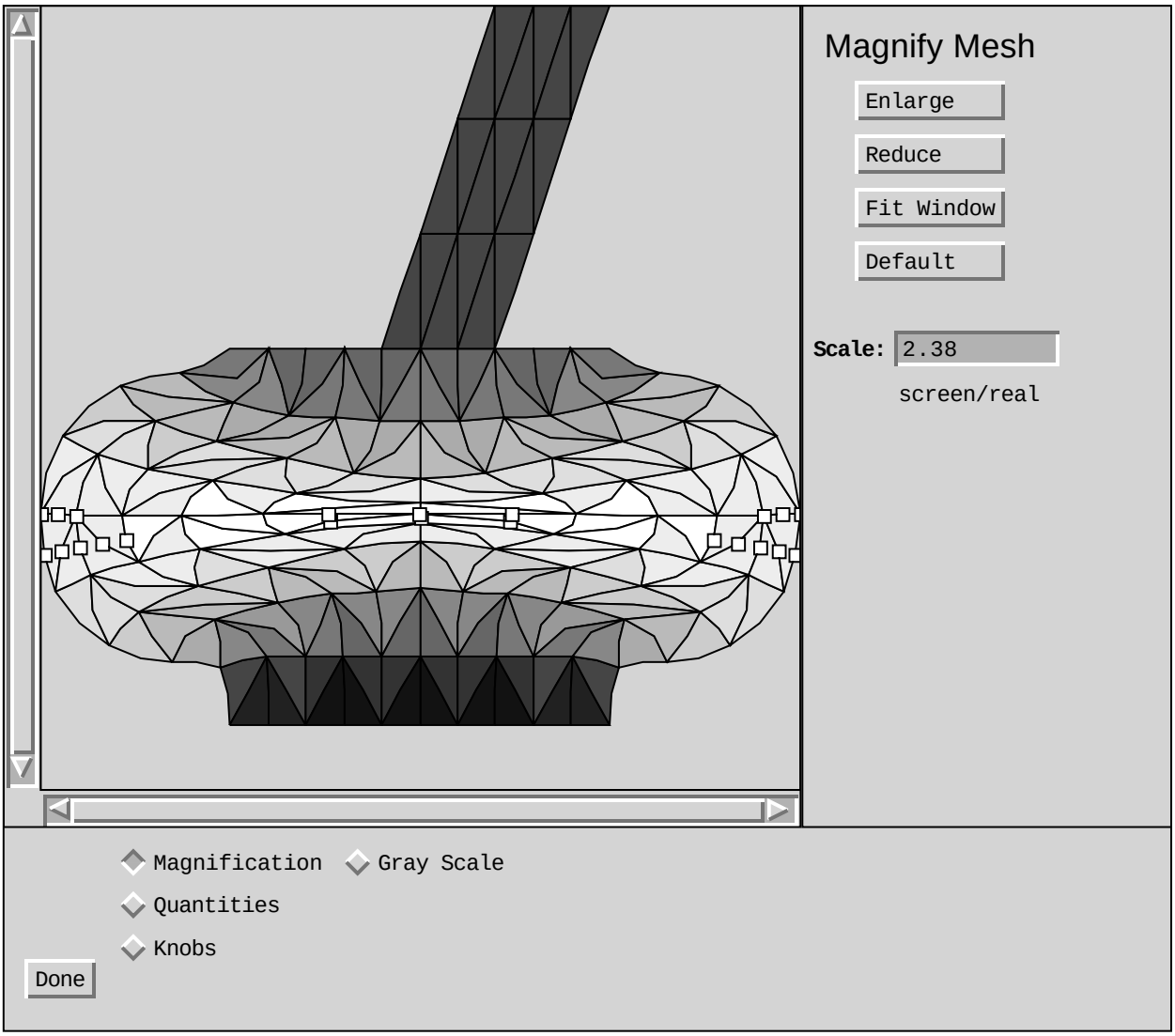
A collaborative project on an environment for the specification, testing, maintenance and automatic generation of application software. The context is batch process control in Chemical Engineering although it is envisaged that the applicability of the environment will be more general. A ‘domain expert’ will be able to specify knowledge about plant subsystems, plant configurations, and the allowable generic operations and constraints on each plant subsystem. An ‘application engineer’ will then use the system to ‘glue’ together predefined operations in order to make specific products. The system will then generate process control code for particular target hardware. Garnet is being used to capture and visualise plant and process information through schematics, process diagrams, interactive simulations and simple animations.

Nikos Drakos, ‘‘Object Orientation and Visual Programming’’, in Mamdouh Ibrahim, editor, *OOPSLA ’92 Workshop on Object-Oriented Programming Languages: The Next Generation*, Vancouver, B.C. Canada, October 18 1992. Extended Abstract. pp. 85-93.



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A mesh created using a virtual aggregate for the polygons and another virtual aggregate for the square knobs. For the polygons, the virtual aggregate is passed a prototype for a polygon, and an array containing the list of points and the color for each polygon. The virtual aggregate then pretends to allocate an object for each element of the array, but actually just draws the prototype object repeatedly.

Kenneth J. Meltsner. ‘‘A Metallurgical Expert System for Interpreting FEA,’’ *Journal of Metals*, Oct, 1991, vol. 43, no. 10, pp. 15-17.