

THE LINK GRAPH SOFTWARE PACKAGE: A STATUS REPORT

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ABSTRACT. *LINK* is a software system for working with graphs and hypergraphs. This presentation will demonstrate some *LINK*'s features and discuss future directions for the package.

1. INTRODUCTION

LINK is a freely available software system for displaying and computing with graphs and hypergraphs. It was created by Jon Berry, Nathaniel Dean, Mark K. Goldberg, Gregory E. Shannon, and Steven Skiena.

This semester for my sabbatical I will be working with Jon Berry (Elon College Computing Sciences Department), the current project manager, to extend the package to include more algebraic invariants.

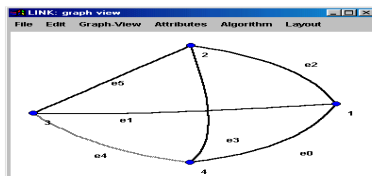
2. OBTAINING *LINK*

LINK can be obtained from <http://zhivago.elon.edu/~berryj/LINK.html>. It is available as source code for Unix systems or as a precompiled Windows program.

This link also includes a manual and many examples of usage.

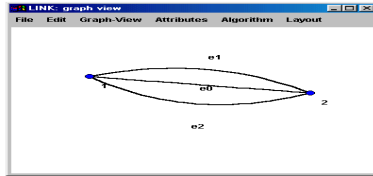
3. EXAMPLES

- No Multiple Edges

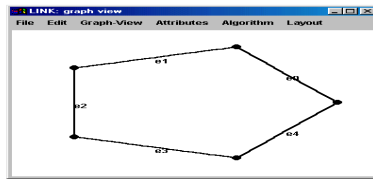


Date: March, 2001.

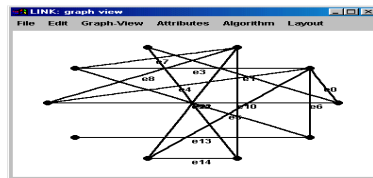
- Multiple Edges Allowed



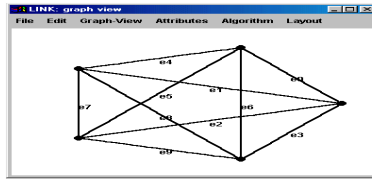
- Cycle



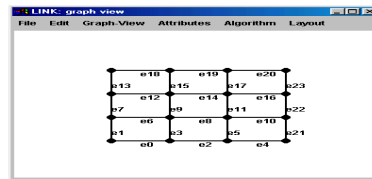
- Random Graph



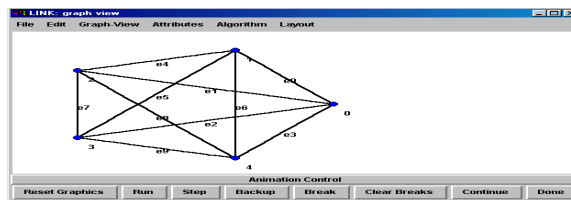
- Complete Graph



- Grid Graph



- Minimal spanning tree



4. DESCRIPTION OF CODE

LINK uses C++ and C for its main computational work. Its graphic interface uses Scheme/Tk.

5. FUTURE DIRECTIONS

While I am on sabbatical this semester, I will be working to add graph automorphism and other algebraic invariants to *LINK*.