Task 5

• **Search Implementation:**
  – Minimax + alpha/beta pruning
  – *your program should be ready to play*
  – *... maybe slow in searching plys ...*

• **Presentations today**
  – Show your program...
  – Give some idea of the search speed:
    • *approx. how many moves/sec does it examine?*
Checkpoint

• You should have already emailed me your term project proposal/details
HOMEWORK, Lecture 12

• 1. Read the provided references.
• 2. Compare the known strengths and weaknesses of “Deep Thought” and “Deep Blue” computers from the Computer Science and/or Chess perspective. Write a typed 1-2 page essay. (30 Pts)
• How did they fare in their respective matches against Kasparov? (5 Pts)

3. Be ready for a quiz on those subjects.
References:

DEEP BLUE-KASPAROV, 1997

References.

OPENINGS
By “Deep Thought”,
Computer Database

• WHITE PIECES
  • Sicilian  9
  • King’s Gambit  8
  • Queen’s Pawn  4
  • King’s Indian  4

• BLACK PIECES
  • Sicilian  10
  • Queen’s Gambit Accepted  9
  • Alekhine’s Defense  6
### Opening Statistics

**Deep Thought**

**White pieces**

- move  games  win  -draw-  loss %  
- 1. e4  36  69.4%  13.9  16.7
- 1. d4  13  53.8%  23.1%  23.1%
- 1. c4  5  100%
- 1. Nf3  Deep Thought vs Mephisto, 1990 1-0
Opening Statistics

Deep Thought

Black Pieces

- move   games   win  -draw -loss %
- 1. e4    25    32%     60%
- 1. d4    21    23.8%   66.7%
- 1. c4    9    33.3%   66.7%
- 1. Nf3    5    80%     20%
- 1. g3  K Spraggett vs Deep Thought, 1989 1-0
- 1. e3  D K Johansen vs Deep Thought, 1991 1-0
- 1. d3  I Althofer vs Deep Thought, 1991 0-1