Connect Four

Connor Settle, Ricky Grannis-Vu, and Danielle Tang
GENERAL GAME PLAYING

Design AI to play arbitrary games successfully based on rules given at runtime

Jim Clune, GGP-2005
GAME DESCRIPTION LANGUAGE

Formal language using symbolic logic to encode the state and rules of a game
WITH **GDL**, WE CAN USE LOGIC PROGRAMMING TO IMPLEMENT GAME PLAYERS
OUR TASK
Connect Flour
The Original Vertical Four-In-A-Row Checkers Game
CRACKED.com
no, not that one
use dynamic logic programming to build a Connect Four worksheet
- automated greedy AI opponent
- your next move, scored
- environment helps you play
OUR APPROACH

- recursive inheritance model
- “raycast” properties
- calculate next goal values
fast, responsive game
behaves like actual connect-4
AI player tries to win as fast as possible, but with no regard to human player
CHALLENGES

- calculating next game state
- diagonal raycasting
- optimization
- locking behaviors during real-time simulation
HERE’S HOW TO PLAY
operation -> transition
ENTER THE WORLD OF CONNECT-4!