

PRACTICAL GAME PROGRAMMING

- Genre: match-3
 - Definition
 - Code considerations
 - Content considerations

DEFINITION

- Player manipulates a grid of tiles to create groups of 3 or more tiles, which then are removed, moving tiles downwards.
- Made famous by PopCap's Bejeweled
- Many, many variations, but the basic idea is the same.

GAMEPLAY

- Player manipulates game grid by swapping, rotating, shifting, or possibly some other way, resulting in somewhat different tile organization.
- When 3 or more tiles connect, they're removed, and tiles get replaced somehow, often by moving tiles downwards, generating new tiles at the top.
- If 3 or more tiles connect after this move, the tiles are again removed. This is called a chain, combo, sequence or similar, with higher payoff.

GAMEPLAY

- Gameplay may be limited by
 - Time
 - Number of moves
 - No more legal moves left
- More gameplay might be acquired by
 - Clearing enough
 - Combos
 - Change of level (N clears to the next level etc)
 - (limited) board resets

CODE CONSIDERATIONS

- Controls
 - Mouse-driven; choose tile(s), may require several steps, state machine?
- Finding the matches
 - Flood fill, mark tiles already handled
- Generating levels
 - Players prefer easy levels!

CONTENT CONSIDERATIONS

- Art
 - Interface graphics
 - Tile graphics
 - Possibly animated
 - Special effect graphics
 - Explosions, sparkles, whatnot

CONTENT CONSIDERATIONS

- Level data
 - Probably best if generated instead of hand-crafted

CONTENT CONSIDERATIONS

- Audio
 - Possible background music
 - Sound effects
 - Interface sounds
 - Clicking on tiles
 - Matched tile removal effects
 - Combo effects
 - End of level sounds