

Solitaire

Klondike version by Group 13

The basic idea

- A Klondike Solitaire
- “Good old Windows version”
- Windows, Mac OS, Linux...

Implementation

- Python 3.3+ & Qt 5.2
- Graphics View Framework
 - Hierarchy of QObject
 - View > Scenes > Items (> Items)
 - Drag & Drop
 - Transformations
- Qt Signals & Slots

Demo

- Drag & Drop and game rules
- Animations
- Undo/Redo
- Opacity slider & Preferences
- New game...

Design

- MVC architecture
- M and V communicate through C
 - Uses Qt Signals & Slots (exceptions...)
 - V signals M via C (move a card, flip a card)
 - M pushes state to V via C (changes in model)
 - C keeps track of actions for Undo/Redo
- All game logic occurs in model

Further development

- Glass panel help content
- Threading
- Perfect game rules
- Winning conditions
- Fancier cards
- Exchangeable rule set, view...

Problems

- Qt installation (PyQt 5.2 on Ubuntu)
- MVC communication (signals vs function calls?)
- Reference passing (and lots of it)