### Software Patents





#### Software Patents

- Patents Generally
- What Is Software?
- What Software Can Be Patented
- How Software Should Be Patented
- iPhone Security As An Example



### Patents Generally

- Right To Make Or Exclude?
- Market Weapons, Not Technology Weapons
- Hunt Inventions In Customer
   Feedback/Market Position/User Features
- Value Of Feature Exclusivity Is Business Strategy
- Technology/Programming Defines Ways To Offer Feature
- Negative Rules Of Patentability



#### What Is Software?

- Algorithms Have Never Been Patentable
  - Mental Steps, Written Material
- Industrial Process Control Has Always Been Patentable
  - Transforms Matter (<u>Diamond v. Diehr</u>),
     Technical Effect (EP)
- Most Software Lies Between These Extremes



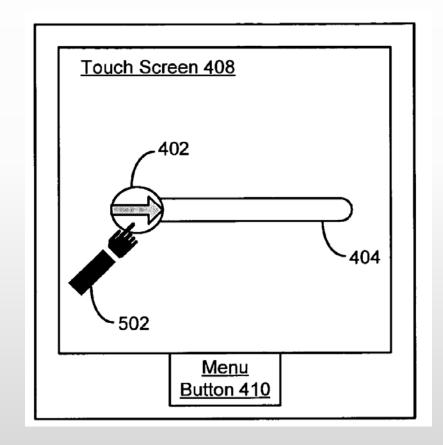
# What Software Can Be Patented?

- Outer Limit Is A Program Fixed In a Tangible Medium Of Expression
  - USPTO Guidelines On Computer-Related Inventions
- Reasonable Limit Is A Programmed General Purpose Computer
  - This Is A New Machine (*In Re Alappat*)
- Methods Of Use, User Interface



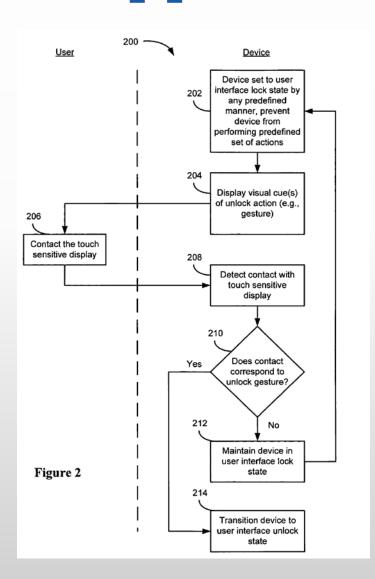
### iPhone Example - "Slide to Unlock" Patent

- U.S. Patent No. 7,657,849
- The '849 patent illustrates three different ways to claim software-related inventions: i) a method of controlling an electronic device; ii) a portable electronic device; and iii) a computer program product for use in conjunction with a portable electronic device.
- Patent with similar claims also granted in Europe (EP 1964022B1) and successfully asserted against Motorola.





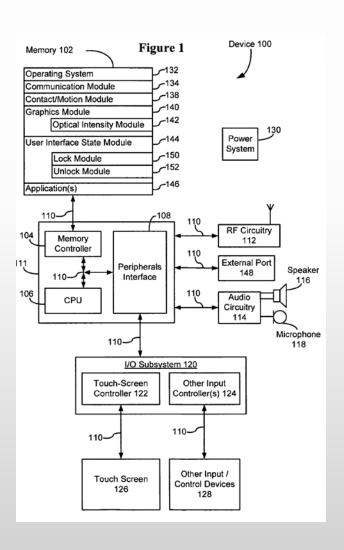
### Apple's Method Claim



- 1. A method of controlling an electronic device with a touch-sensitive display, comprising:
  - detecting contact with the touch-sensitive display while the device is in a user-interface lock state;
  - moving an unlock image along a predefined displayed path on the touch-sensitive display in accordance with the contact, wherein the unlock image is a graphical, interactive user-interface object with which a user interacts in order to unlock the device;
  - transitioning the device to a user-interface unlock state if the detected contact corresponds to a predefined gesture; and
  - maintaining the device in the user-interface lock state if the detected contact does not correspond to the predefined 3 gesture.



#### Apple's Device Claim



**14**. A portable electronic device, comprising: a touch-sensitive display; memory;

one or more processors; and

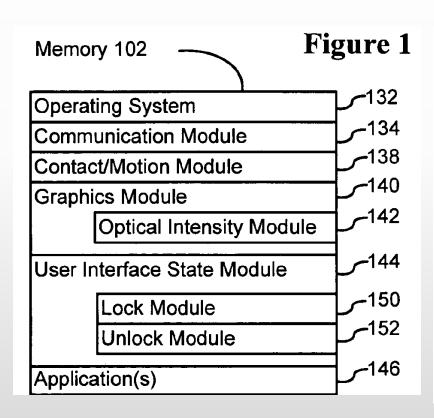
one or more modules stored in the memory and configured for execution by the one or more processors, the one or more modules including instructions:

to set the device to a user-interface lock state;

- to display an unlock image on the touch-sensitive display while the device is in the user-interface lock state;
- to detect contact with the touch-sensitive display;
- to transition the device to a user-interface unlock state if the detected contact corresponds to moving the unlock image across the touch-sensitive display according to a predefined displayed path on the touchsensitive display; and
- to maintain the device in the user-interface lock state if the detected contact does not correspond to moving the unlock image across the touch-sensitive display according to the predefined displayed path.



# Apple's Computer Program Product Claim



20. A computer program product for use in conjunction 1 with a portable electronic device comprising a touch-sensitive display, the computer program product comprising a computer readable storage medium and an executable computer program mechanism embedded therein, the executable computer program mechanism comprising instructions for: 2

detecting contact with the touch-sensitive display while the device is in a user-interface lock state;

moving an unlock image along a predefined displayed path on the touch-sensitive display in accordance with the contact, wherein the unlock image is a graphical, interactive user-interface object with which a user interacts in order to unlock the device;

transitioning the device to the user-interface unlock state if the detected contact corresponds to a predefined gesture; and

maintaining the device in the user-interface lock state if the detected contact does not correspond to the predefined gesture.



# How Software Should Be Patented

- Identify A Strategic Product Feature
- Write Pseudo-Code To Implement The Feature
- Claim Programmed General Purpose Computer
- Claim Method Of Using Device By User
- Software As System Including Hardware And User Interactions



## Wesley W. Whitmyer, Jr wwhitmyer@whipgroup.com



Whitmyer IP Group 600 Summer Street Stamford, CT 06901