

Forget The Mouse!

Don McAllister

Host/Producer of ScreenCasts**ONLINE**

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MacMania 11™

Don McAllister

Host/Producer of **ScreenCastsONLINE**

<http://www.screencastsonline.com>

Mac Industry Pundit & Commentator

Mac Voices Podcast - UK & European View

Mac Roundtable Podcast - Geek Tech Podcast

The Mac Jury - Panel Discussions

MacBreak Weekly - Guest Panelist

International Speaker on Podcasting

Podcast and New Media Expo/Blogworld - L.A. 2007, 9 & 8

Macworld - San Francisco 2008, 9 & 10

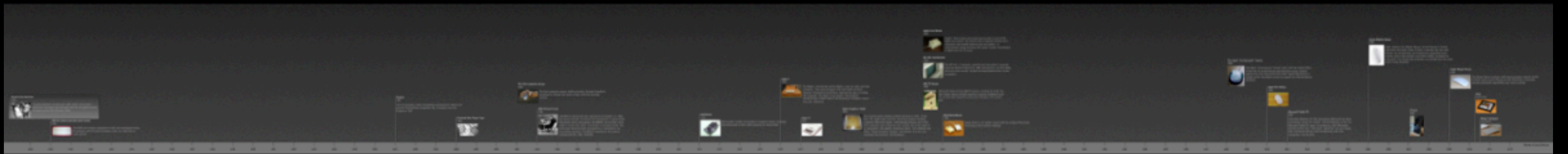
Podcamp Barcelona - 2008

Session Contents

- A Quick History of Input Devices
- Touch & Gesture Devices
- Pen Based Devices
- Other Input Methods
- Where Next?

A Quick History of Input Devices

How did it all start?



Punch Card Machine

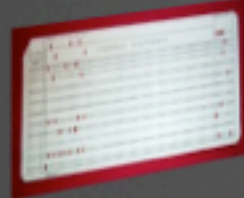
1938



"A good operator can turn out 1,500 punch cards daily."
Operators compiling hydrographic data for navigation charts
on punch cards, New Orleans, 1938.

IBM 80 column punched card format

1940



This IBM card format, designed in 1928, had 80 columns with 12 punch locations each, one character in each column

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"A good operator can turn out 1,500 punch cards daily."
Operators compiling hydrographic data for navigation charts
on punch cards, New Orleans, 1938.

IBM 80 column punched card format 1940



This IBM card format, designed in 1928, had rectangular holes, 80 columns with 12 punch locations each, one character to each column

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Stylator

1957

The first graphics tablet resembling contemporary tablets and used for handwriting recognition by a computer was the Stylator in 1957

The first computer mouse

1961



The first computer mouse, held by inventor Douglas Engelbart, was a wooden box with two buttons and a cord that made contact with the writing surface.

Punched hole Paper Tapes

1960



The IBM 28 card punch was announced on October 14, 1964. The latest version of a device first developed 14 years earlier, the punch and its companion, the IBM 28 card reader, were used to record and check information in punched cards. The cards were then read and processed by a computer or an accounting machine. The IBM 28 remained in the product catalog until May 1984 (19400).

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Stylator 1957

The first graphics tablet resembling contemporary tablets and used for handwriting recognition by a computer was the Stylator in 1957

Punched Hole Paper Tape 1960



The first computer mouse 1963



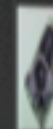
The first computer mouse, held by inventor Douglas Engelbart, showing the wheels that make contact with the working surface

IBM 29 Card Punch 1964



The IBM 29 card punch was announced in October 14, 1964, the newest version of a device first developed 74 years earlier. The punch and its companion, the IBM 28 card writer, were used to record and check information in punched cards. The cards were then read and processed by a computer or an accounting machine. The IBM 29 remained in the product catalog until May 1984. (Y14862)

IBM 28



The IBM 28 card writer was used to punch holes in cards.

IBM 29



The IBM 29 card punch was used to punch holes in cards.

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The first computer mouse

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The first computer mouse, held by inventor Douglas Engelbart, showing the wheels that make contact with the working surface

IBM 29 Card Punch

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Bill English, founder of Logitech, is shown with the first mouse in 1972 while writing for News Week.



April 1977



April 1977

The Apple II computer was introduced in 1977. It was the first mass-produced, affordable, and easy-to-use personal computer. It featured a keyboard, a screen, and a mouse.



November 1977

The first version of the Macintosh was introduced in 1977. It was the first mass-produced, affordable, and easy-to-use personal computer with a graphical user interface.

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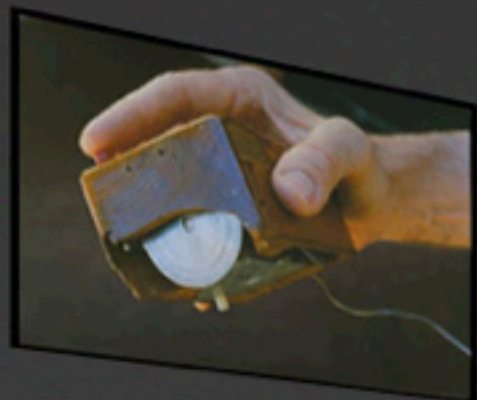
1979

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First computer mouse



The first computer mouse, held by inventor Douglas Engelbart, showing the wheels that make contact with the working surface

IBM 29 Card Punch

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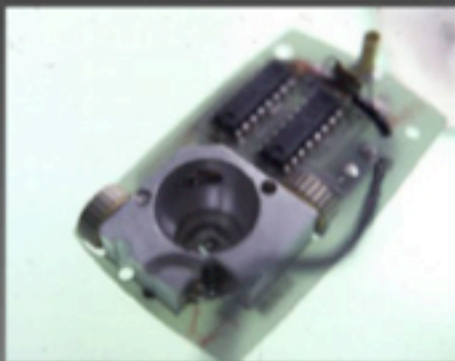
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Ball Mouse

1972



Bill English, builder of Engelbart's original mouse, invented the ball mouse in 1972 while working for Xerox PARC

Apple I
1976



The Apple I, also known as the Apple-1, was an early personal computer. They were designed and hand-built by Steve Wozniak. Wozniak's friend Steve Jobs had the idea of selling the computer. The Apple I was Apple's first product, demonstrated in April 1976 at the Homebrew Computer Club in Palo Alto, California.

Apple IIe Mouse
1981



Apple IIe mouse was the first mouse to be designed by Apple. It was a simple, light-colored mouse with two buttons and a cord. It was designed to be used with the Apple IIe computer.

Apple IIe Keyboard
1981



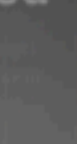
The Apple IIe keyboard was the first keyboard to be designed by Apple. It was a compact keyboard with a numeric keypad and a cord. It was designed to be used with the Apple IIe computer.

Apple IIc Mouse
1982



The Apple IIc mouse was the first mouse to be designed by Apple for the Apple IIc computer. It was a small, light-colored mouse with two buttons and a cord.

Apple IIc Keyboard
1982



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Apple 1 1976



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Apple II 1977



1979



The original Apple Graphics Tablet released in 1979. At the time, the Apple II plus was the latest and greatest desktop computer offered by Apple. Interestingly enough, one of the first computer paint programs ever created ran on the Apple II in conjunction with Apple's Graphics Tablet. The software was titled, "Utopia Graphics System," and believe it or not, was developed by musician Tod Rundgren.

Apple Lisa Mouse 1983



Apple's first commercial mouse goes public as part of the Apple Lisa system. The mouse uses a repress-release II-4 connector and notably features only one button—a controversial design decision that would remain the hallmark of Apple mice for 22 years.

HP-150 Touchscreen 1983



The HP-150 Touchscreen was the first commercial touchscreen. It was developed by Hewlett-Packard and used a resistive technology. The device was used for data entry and was a significant milestone in the development of touchscreens.

Apple's original mouse, invented
inspired by Xerox PARC

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Apple's first commercial mouse goes public as part of the Apple IIe system. The mouse uses a spring-driven ball connector and rotary buttons only one inch in diameter—two essential design decisions that would ensure the success of Apple mice for 25 years.

MP-150 Touchscreen
1982



The MP-150, a "compact, powerful and innovative" computer made by Hewlett-Packard in 1982 and based on the Intel 8086, was one of the world's earliest commercial touch-screen computers.

IBM PC Mouse
1983



Microsoft releases its first IBM PC mouse, selling for \$16. The two-button mouse initially requires a special program and for use but later supports connection through a PC's serial port.

Revisited Mouse
1984



Apple ships a one-button mouse with the original Macintosh featuring a new rubber coating.

Apple Graphics Tablet

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IBM PC Mouse
1983



Microsoft ships its first IBM PC mouse, retailing for \$24.95. It features two buttons and a scroll wheel.

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Apple Lisa Mouse

1983



Apple's first commercial mouse goes public as part of the Apple Lisa system. The mouse uses a squeeze-release DE-9 connector and notably features only one button—a controversial design decision that would remain the hallmark of Apple mice for 22 years.

HP-150 Touchscreen

1983



The HP-150, a "compact, powerful and innovative" computer made by Hewlett-Packard in 1983 and based on the Intel 8088, was one of the world's earliest commercialized touch screen computers.

MOUSE

IBM PC mouse, retailing for \$195. The special peripheral card PC's serial



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IBM PC Mouse 1983



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Mouse

button mouse with the original Macintosh

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Macintosh Mouse 1984



Apple ships a one-button mouse with the original Macintosh featuring a new exterior redesign.

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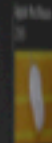
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To get the full story



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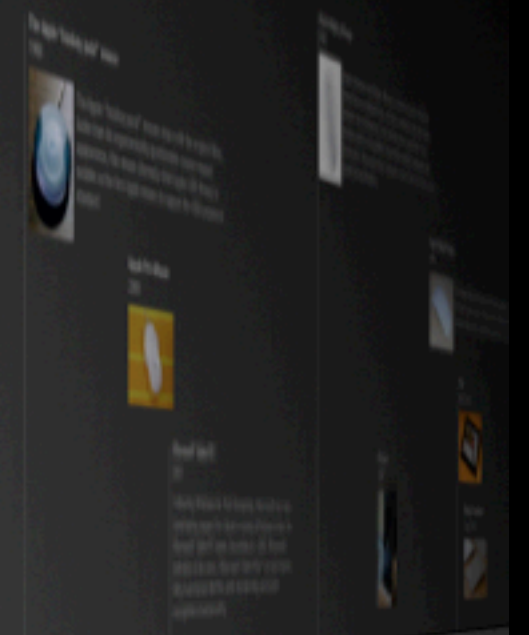
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The Apple "hockey puck" mouse 1998



The Apple "hockey puck" mouse ships with the original iMac. Aside from its ergonomically questionable saucer-shaped appearance, this mouse (formally titled Apple USB Mouse) is notable as the first Apple mouse to support the USB peripheral standard

Apple Pro Mouse
2000



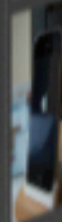
Microsoft Tablet PC
2001

Following Windows for Pen Computing, Microsoft has been developing support for tablets running Windows under the Microsoft Tablet PC name. According to a 2001 Microsoft definition of the term, "Microsoft Tablet PCs" are pen-based, x86 PCs with handwriting and voice

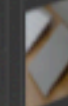
Apple Mighty Mouse
2005

The Mighty Mouse is a multi-button mouse that was introduced in 2005. It features a scroll wheel and a trackball, and is designed to be used with the Apple Mighty Mouse software.

iPhone
2007



Apple TV
2001



Apple Watch
2015



The Apple "hockey puck" mouse 1998



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Microsoft Tablet PC 2001

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Apple Mighty Mouse 2005



Apple releases the Mighty Mouse, the first mouse to feature more than one button (two, in fact). Ironically, the two main buttons are not physical, but instead use capacitive touch sensors with a tiny speaker to provide audible feedback for each click. The mouse also includes a scroll ball that can scroll in any direction.

Apple Magic Mouse 2009



The Apple Mouse features multi-touch gestures and is the first mouse to feature multi-touch gestures and multi-touch gestures at one time.

Apple TrackPoint 2009



Apple TrackPoint 2009



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Apple Pro Mouse
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Microsoft Tablet PC
2001

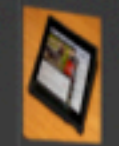
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Apple Magic Mouse
2009



The Magic Mouse features multi-touch gesture control, similar to those found on the iPhone and the MacBook's trackpad, and uses Bluetooth capabilities for wireless connectivity.

Pad
April 2010



Next Tablet
July 2010



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View other items

Apple Mighty Mouse

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Apple releases the Mighty Mouse, its first mouse to feature more than one button (four, in fact). Ironically, the two main buttons are not physical, but instead use capacitive touch sensors with a tiny speaker to provide audible feedback for each click. The mouse also includes a scroll ball that lets users scroll in any direction.

Apple Mighty Mouse



The Mighty Mouse includes audio feedback similar to those found on the iPhone and the MacBook trackpad, wireless Bluetooth capabilities and laser-tracking.

iPad
April 2010



Magic Trackpad
2010

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iPhone
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Apple Magic Mouse
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iPad
April 2010



Magic Trackpad
July 2010



History of Input Devices

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History of Input Devices

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History of Input Devices

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Magic Trackpad
July 2010



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History of Input Devices

Touch & Gesture Devices

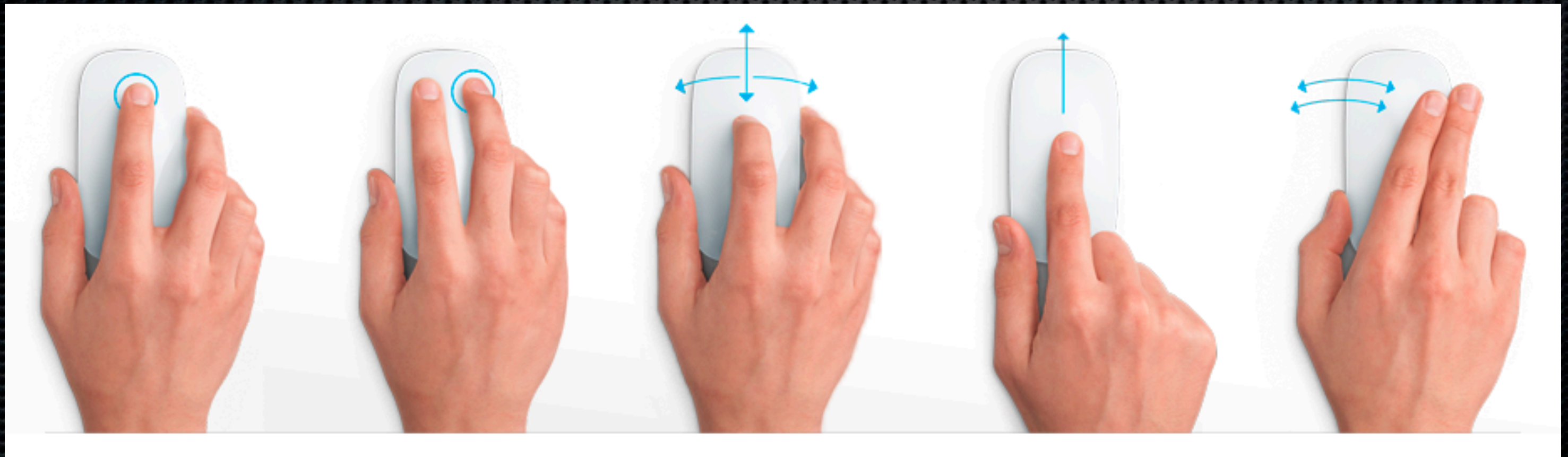
Mouse, Trackpad & iOS

Magic Mouse



Hang on, I thought we were forgetting the mouse?

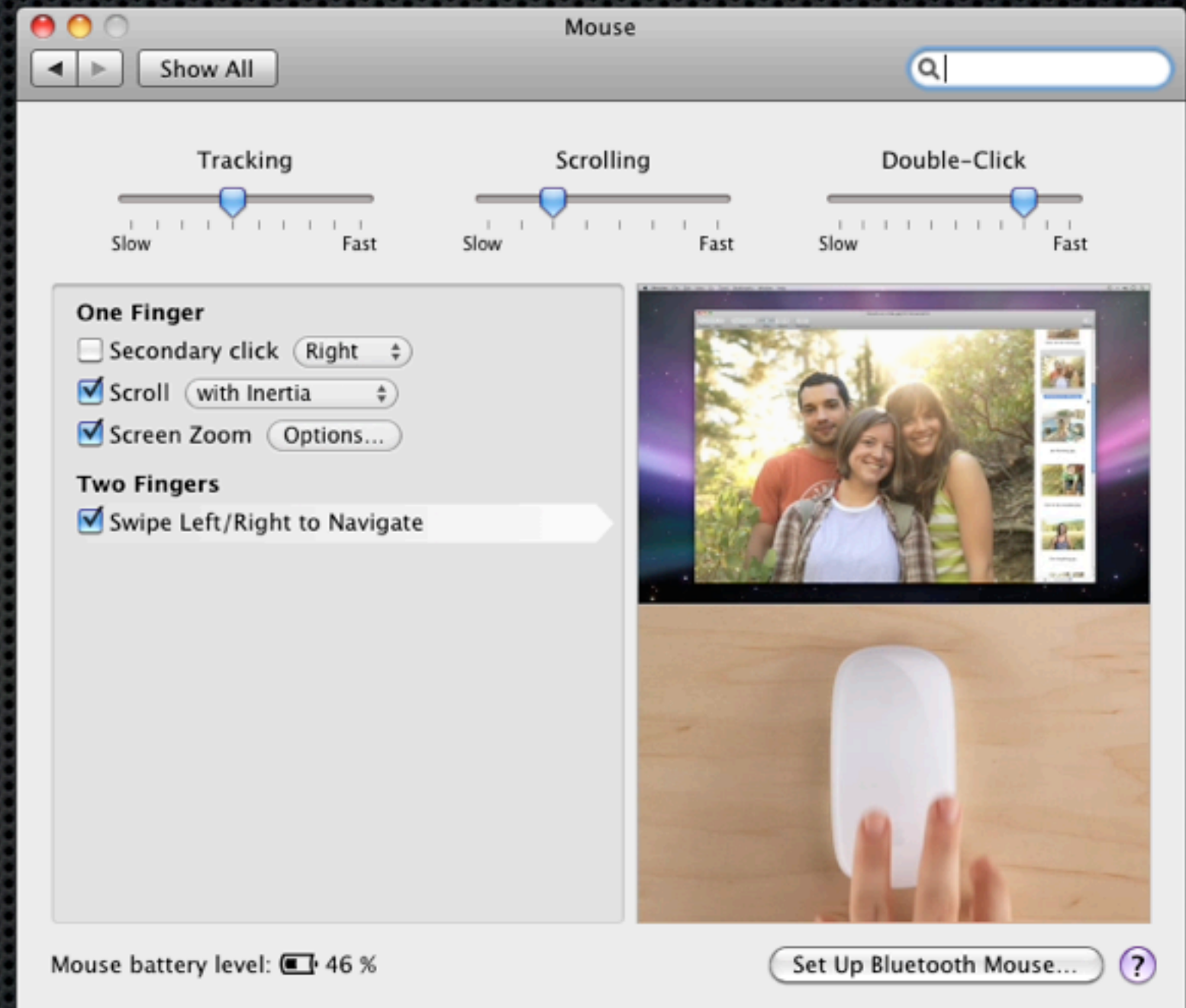
Magic Mouse



Touch and Gestures now included!

Magic Mouse

- ✦ One Finger Click
- ✦ One Finger Scroll & Zoom
- ✦ Two Finger Swipe



MagicPrefs

- ✦ Add Clicks and Taps
- ✦ Swipes
- ✦ Drag & Pinch

Demo



<http://magicprefs.com/>

MagicPrefs

- ✦ Add Clicks and Taps
- ✦ Swipes
- ✦ Drag & Pinch

Demo



<http://magicprefs.com/>

Magic Trackpad



Now we're talking!

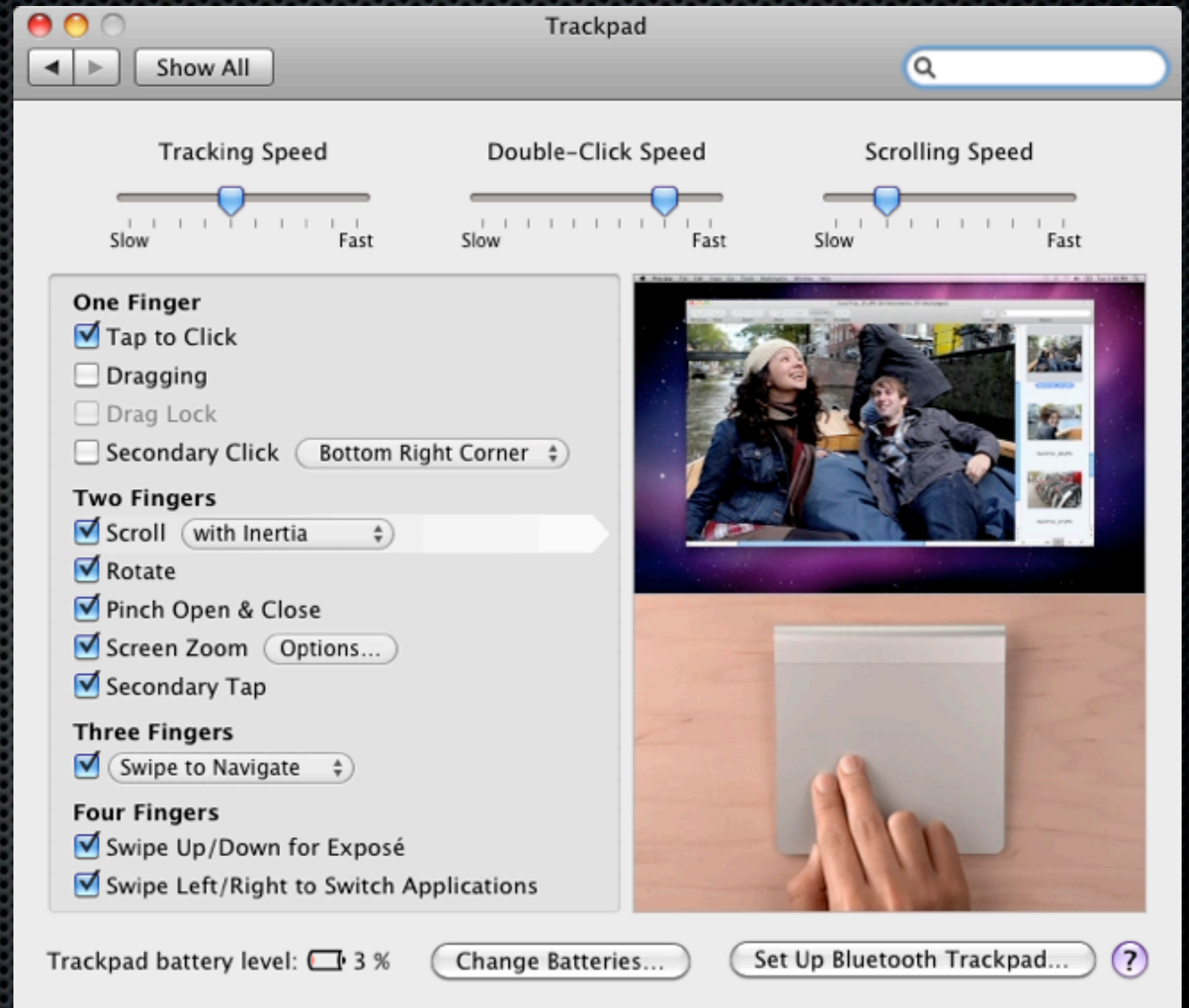
Magic Trackpad



Made for Touch and Gestures

Magic Trackpad

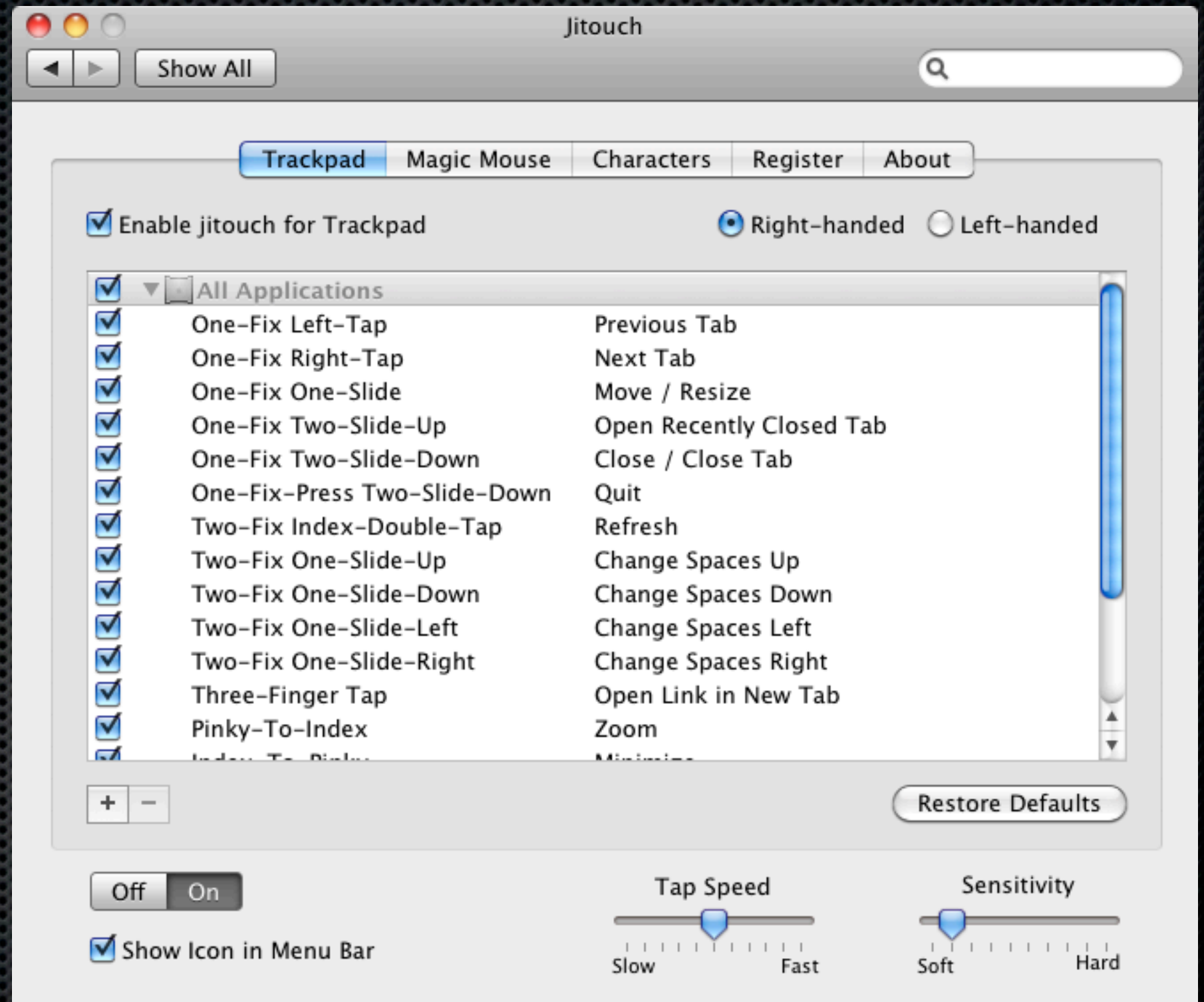
- ✦ One Finger
- ✦ Two Fingers
- ✦ Three Fingers
 - ✦ Swipe or Drag
- ✦ Four Fingers



JiTouch

- ✦ TrackPad
- ✦ plus Mouse!
- ✦ Customisable
- ✦ Character Gestures

Demo

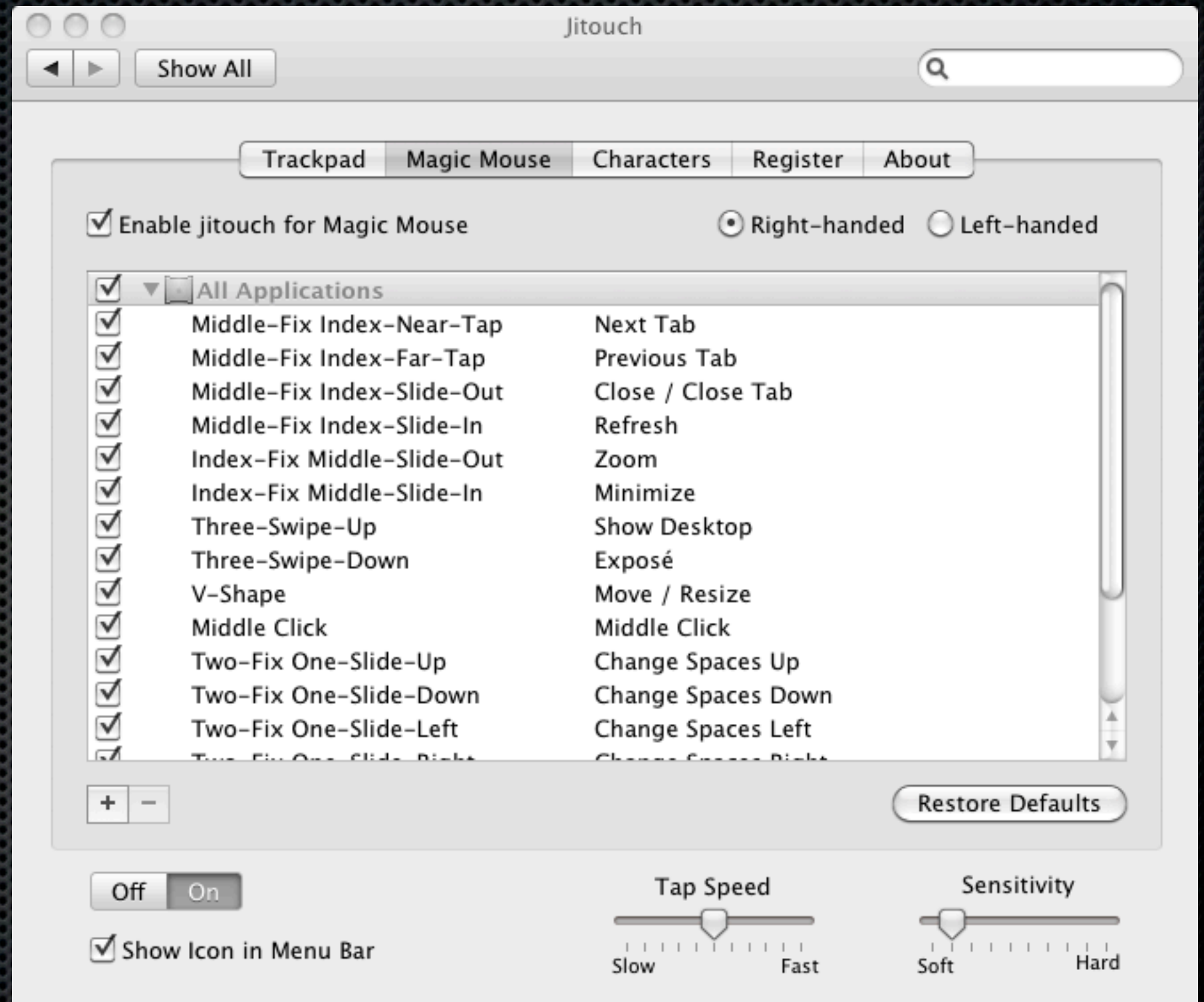


<http://www.jitouch.com>

JiTouch

- ✦ TrackPad
- ✦ plus Mouse!
- ✦ Customisable
- ✦ Character Gestures

Demo



<http://www.jitouch.com>

Magic Trackpad

Ergonomics and Extended Use?



iPad and iPhone

- ✦ Multi Fingered Gestures
 - ✦ How many?
 - ✦ Let's test!
 - ✦ Up to 11 individual points



iPad and iPhone

- ✦ iOS 4.3 beta
 - ✦ 4 fingers swipe
 - ✦ 4 fingers up
 - ✦ 5 fingers pinch



iPad and iPhone

- ✦ Using as remote to Mac
 - ✦ iTeleport
 - ✦ TouchPad



Pen Based Devices

Wacom Tablets

Why Pen Devices

- ✦ More Natural & Ergonomic
- ✦ More Accurate
- ✦ Highly Configurable
- ✦ Possible to combine Pen & Touch



Three Models - Wacom

- ✦ BamBoo Pen
- ✦ BamBoo Pen & Touch (Fun)
- ✦ Intuos4



But not BamBoo Touch

Bamboo Pen (\$69)

- ✦ Use as a Mouse or Pen
- ✦ Configurable buttons on Pen
- ✦ Scrolling
- ✦ Drawing
- ✦ 512 Pressure levels
- ✦ Bamboo Dock



Bamboo Pen & Touch (\$99 - \$199)

- ✦ Same as Pen with added...
 - ✦ Touch Gestures
 - ✦ 4 Programmable Buttons
 - ✦ 1024 Pressure levels



Intuos4 (\$229 - \$399) + larger

Demo

- ✦ 8 Prog Buttons with OLED
- ✦ TouchRing
- ✦ Precision Mode
- ✦ 2048 Pressure levels
- ✦ Specialised Pens
- ✦ Radial Menus
- ✦ Per Application Config



Intuos4 (\$229 - \$399) + larger

Demo

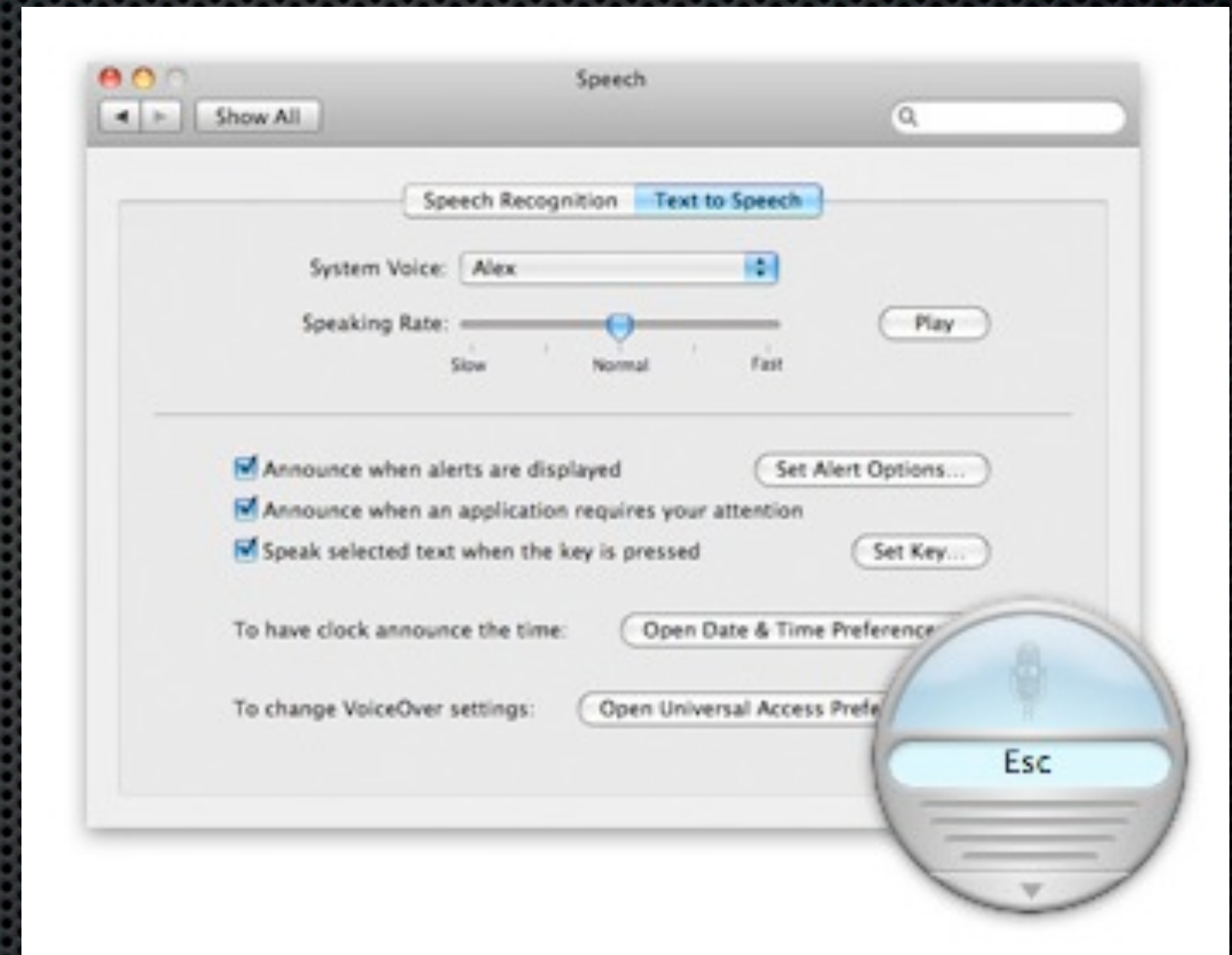
- ✦ 8 Prog Buttons with OLED
- ✦ TouchRing
- ✦ Precision Mode
- ✦ 2048 Pressure levels
- ✦ Specialised Pens
- ✦ Radial Menus
- ✦ Per Application Config



Other Input Methods

Voice Control

- ✦ OSX already has Voice Control
- ✦ iPhone includes Voice Control
- ✦ Dragon Dictate for Mac and iPad
 - ✦ Not just Speech Recognition



The Future

- ✦ Touchscreen Macs?
- ✦ Kinect type interfaces?
 - ✦ Gesture-sensing iPad Dock @ CES 2011
 - ✦ EllipticLabs.com



Video

The Future

- ✦ Touchscreen Macs?
- ✦ Kinect type interfaces?
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Video

Any Questions?

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