

# **ADVANCED USER INTERFACES & DISPLAY DEVICES**

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# Initial Bidding Guidance: Low 7 Figures

With early priority dates from 1997, this portfolio is directed to improvements in user interfaces and display devices, including the following:

- 1. Method to detect handedness of a user and to interpret a user's inputs based on that detected handedness. [6,243,074]
- 2. A device supporting a manipulatable user interface includes a feedback module for presenting information related to a data structure, along with a processor for controlling the feedback module and the data structure. The feedback module can include non-visual tactile displays, auditory displays, or visual displays. [6,243,075]
- 3. Method to support a hand- or touch-operated user interface that detects user handedness and interprets user input based on handedness to modify the displayed data structure. *[6,630,922]*
- 4. Methods and systems to combine a plurality of display units with different resolutions, using display unit-specific scaling to compensate for different pixel sizes of each unit, in order to preserve the geometry of images displayed across multiple units and allow the user to view a substantially continuous image. Importantly, a flat high-resolution display is combined with a projection display such that the projection display surrounds the high-resolution display and the visible gap between them is minimized. [7,333,071& 7,546,540; 7,475,356; 7,629,945 & 7,629,945]
- 5. Methods to interpret user input based on physical manipulation of a device that is connected to a deformable piece having a plurality of sensors, including accelerometers to detect relative spatial information; gyroscopic, radio, or infrared positional sensors to determine absolute position; and various thermal or photo sensors to gauge changing temperature and light levels. [6,268,857 & 7,082,578] Can be applied to a revolvable device. [6,297,838]
- 6. Method and apparatus for a manipulatory user interface that responds to twisting, folding, bending, squeezing, shaking, tilting, spinning, lifting, or other physical manipulations. Employs physically manipulatable control elements to construct complex commands for organizing data structures. *[6,297,805]*
- 7. Method and apparatus for a dynamically relocatable tileable display capable of supporting optical, radio, or mechanical interconnections, wherein specific data based on relative spatial positions from several devices can be transferred through a plurality of communication modules. *[6,340,957]*

**Forward Citing Companies:** Adobe Systems, Amazon.com, Apple, AT&T, Blackberry, Canon, Casio, Covidien, Danaher, Dell, Digimarc, E Ink Holdings, Eastman Kodak, Exceptional Innovation LLC, Finning International, Flextronics International, Fujifilm, Fujitsu, Global OLED Technology LLC, Google, Hewlett-Packard, Hon Hai, HTC, IBM, Imerj LLC, Immersion Corporation, Infineon Technologies, Intel, Intellectual Ventures, Konami, Konica Minolta, Lenovo Group, LG Electronics, Logic Spa, Microchip Technology Inc., Microsoft, Motorola Solutions, NEC, Next Holdings Limited, Nintendo, Nokia, Panasonic, Philips, Pixart Imaging Inc., Qualcomm, Raytheon, Ricoh, Samsung, Sharp, Siemens AG, Smart Technologies Inc, Smith Micro Software Inc., Sony, Tactus Technology Inc., Toshiba, Verint Systems, Vodafone

## TECHNOLOGY

USER INTERFACES AND DISPLAY DEVICES

#### NOVELTY

ADVANCED METHODS AND SYSTEMS FOR USER INTERFACES AND DISPLAY DEVICES

#### IMPORTANCE

A VALUABLE PORTFOLIO FOR ELECTRONIC COMMUNICATION DEVICE COMPANIES, SUCH AS MANUFACTURERS OF SMARTPHONES, TABLETS, AND LAPTOPS

NUMBER OF ASSETS

#### PATENTS (19)

US 6,243,074 US 6,243,075 US 6,268,857 US 6,297,805 US 6,297,838 US 6,340,957 US 6,630,922 US 7,082,578 US 7,333,071 US 7.475.356 US 7,546,540 US 7,629,945 CA 2385906 DE 0899650 EP 0899650 FR 0899650 GB 0899650 JP 4109012 JP 4149574

**APPLICATIONS (1)** 

EP 02010604.3



Priority Date: 08-29-1997

### Representative Claim: US 7,333,071 - Claim #1

A method for displaying a perceived continuous image across first and second display areas, each display area having a given display resolution and the display resolution of one display area is different than the display resolution of the other display area comprising: a) providing a source image to be displayed on the first and second display areas, b) providing first and second portions of the source image to be displayed on the first and second display areas, b) providing first and second portions of the source image is a scaled portion of the source image such that when the first and second portions of the source image are displayed on the first and second display areas the resulting displayed image appears substantially continuous to a viewer situated to view the displayed image and the displayed resolution of the first portion of the source image is different from the displayed resolution of the second portion of the source image to the first display area and the second portion of the source image to the second display area.

#### Contact:

For more information on the assets available for sale in this portfolio, contact Paul Greco.

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