De Lorean: Time and space leaping photo browser employing finger gestures

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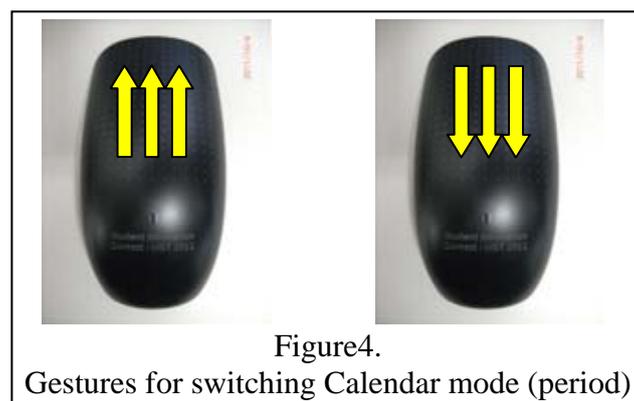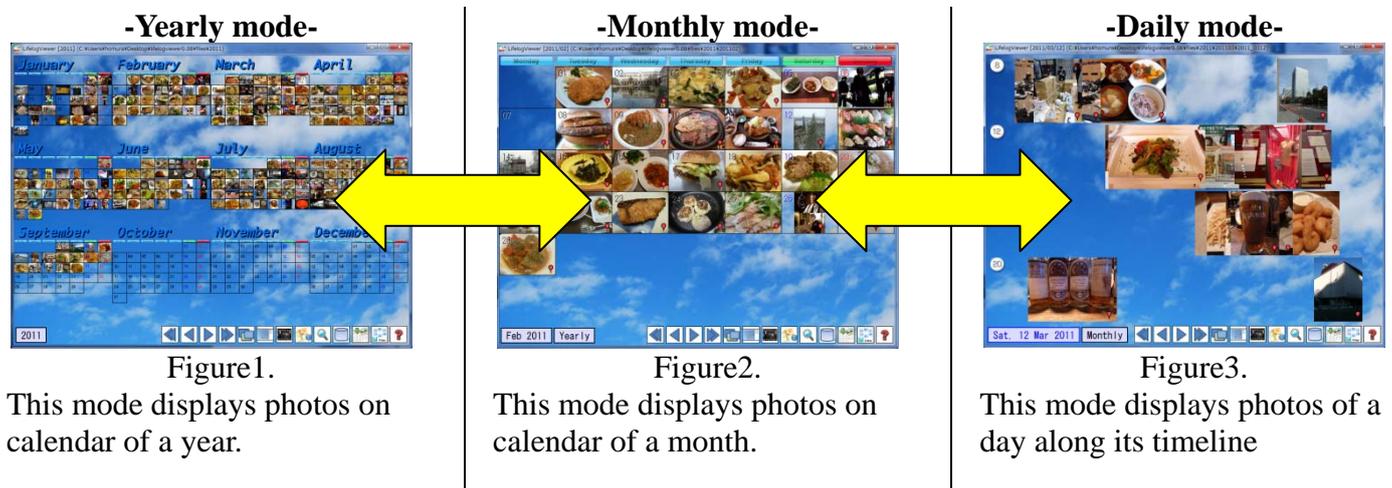{cxm45544, ajj85809, api83907, akj82319}@kwansei.ac.jp

Introduction

The De Lorean enables easy retrieval of photos from his/her huge personal photo archive by employing both finger gestures on a Microsoft Touch Mouse and touch operations on a conventional touch screen. With the wide spread of digital cameras and camera phones, we all have had huge photo archives with tiny costs. Thus methods for browsing/retrieving photos in such a huge archive are desired. Finger operations on the two different input devices provides him/her with plural kinds of operations, e.g., map scrolling by dragging a finger on the touch screen or map zooming by a gesture on the Touch Mouse.

The De Lorean works as a frontend processor of LifelogViewer [1], a "calendar style" photo browser developed by Prof. Satoshi Nakamura of Kyoto Univ. The LifelogViewer basically shows photos on a calendar face among yearly, monthly or daily calendar face using EXIF time stamp of each photo.

1. Switching Calendar Mode

The user can switch the face of the calendar among yearly, monthly and daily by three finger vertical swipe gestures as shown in Fig 4.

-Yearly mode-	-Monthly mode-	-Daily mode-

Figure1.
This mode displays photos on calendar of a year.

Figure2.
This mode displays photos on calendar of a month.

Figure3.
This mode displays photos of a day along its timeline

Figure4.
Gestures for switching Calendar mode (period)

2. Skipping Period of the Current Calendar

The user can skip forward/back a period of the current calendar. For instance, when the system shows a monthly calendar, he/she can skip forward/back the view either yearly by one finger vertical swipe gestures as indicated as red arrows in Fig5 and Fig6, or monthly by one finger horizontal swipe gestures as yellow arrows.
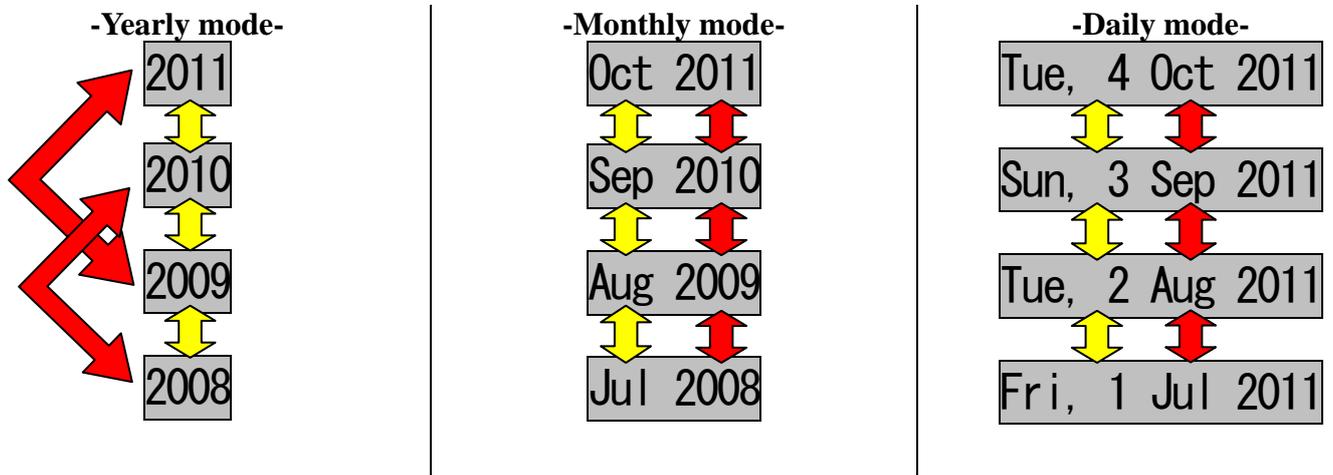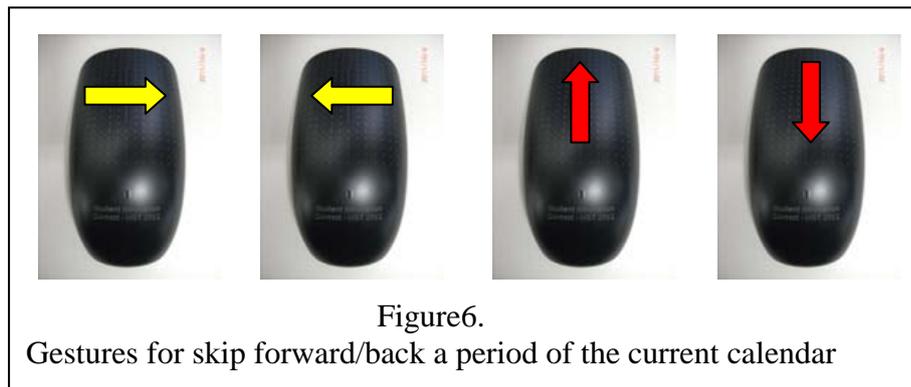
-Yearly mode-

2011
2010
2009
2008

-Monthly mode-

Oct 2011
Sep 2010
Aug 2009
Jul 2008

-Daily mode-

Tue, 4 Oct 2011
Sun, 3 Sep 2011
Tue, 2 Aug 2011
Fri, 1 Jul 2011

Figure5.

Figure6.
Gestures for skip forward/back a period of the current calendar

3. Scrolling/Zooming Map View

The LifelogViewer has another browsing mode named "Map view." By consulting the geo-tag of each photo in the archive, the system arranges photos of the current period on a map as shown in Fig7 and Fig8. He/she can scroll the map by dragging his/her finger on the touch screen, and also can zoom in/out the map by pinch out/in gestures on the Touch Mouse as shown in Fig9.
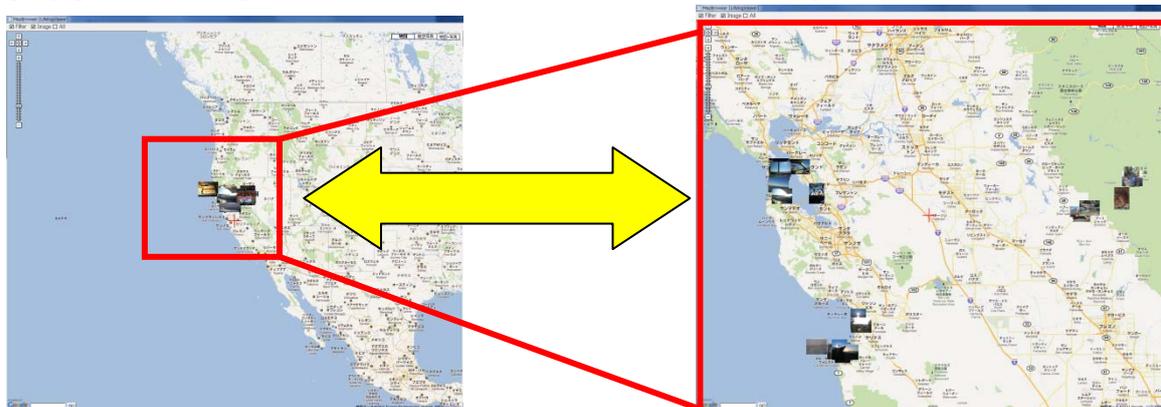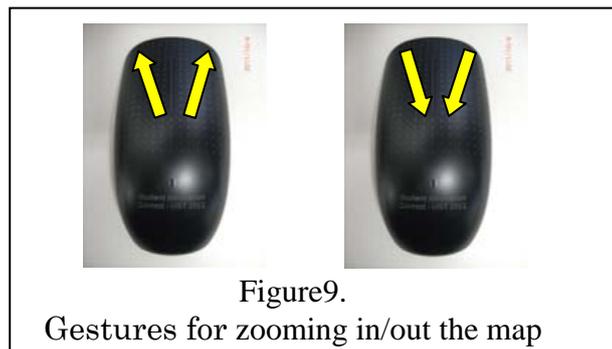

Figure7.

Figure8.

Figure9.
Gestures for zooming in/out the map

References

[1] Satoshi Nakamura, LifelogViewer, http://calendar2.org (in Japanese)