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FIG. 4A

(57) Abstract: A method and apparatus for magnifying selected portions of visual information on a screen is provided. In response to receiving first user input, displaying, within a first bounded region that encloses a first portion of visual information, (a) the first portion at a same magnification level as the visual information that is outside of the first bounded region, and (b) a visual indication of a second bounded region that encloses a second portion of the visual information. In response to receiving second user input, displaying, within the first bounded region, the second portion of the visual information at a magnification level that is greater than the magnification level of the visual information that is outside of the first bounded region.
What is claimed is:

1. A machine-implemented method for magnifying selected portions of visual information on a screen, comprising:
   in response to receiving first user input, displaying an object that includes:
   (a) a first visual indicator indicating a first bounded region that is a first portion of the visual information; and
   (b) a second visual indicator indicating a second bounded region that is a second portion of the visual information;
   wherein the object operates in a plurality of modes that includes at least a focus-on-loupe mode and a focus-on-cursor mode;
   while said object is operating in said focus-on-loupe mode, then displaying, within the first bounded region, at a magnification level that is greater than the magnification level of the visual information that is outside of the first bounded region, the second portion of the visual information, and
   in response to receiving second user input while said object is operating in said focus-on-loupe mode, switching to operating in said focus-on-cursor mode;
   while said object is in said focus-on-cursor mode, displaying within the first bounded region, at a magnification level that is greater than the magnification level of the visual information that is outside of the first bounded region, a third portion of the visual information centered upon a current location of a mouse pointer.

2. The method of Claim 1, further comprising:
   in response to receiving said second user input, ceasing to display the visual indication of the second bounded region.

3. The method of Claim 1, wherein said first user input is transmitted in response to pressing a button and said second user input is transmitted in response to cease pressing said button.
4. The method of Claim 1, wherein said first bounded region and said second bounded region have the same shape, and wherein said same shape is any one of: a circle, a square, a rectangle, an oval, and a user-configurable shape.

5. The method of Claim 1, further comprising:
in response to receiving third user input, automatically moving, on said screen, said first bounded region, through a series of intermediate positions arranged in a line, from an initial position to an end position that is identified by a mouse pointer,
wherein said series of intermediate positions are determined based upon said initial position and said end position and are not determined based on movement of said mouse pointer.

6. The method of Claim 1, further comprising:
in response to receiving third user input, moving said first bounded region on said screen in accordance with movement of a mouse pointer; and
in response to receiving fourth user input, ceasing to move said first bounded region in accordance with the movement of said mouse pointer.

7. The method of Claim 1, further comprising:
in response to receiving third user input, ceasing to display said first bounded region on said screen; and
in response to receiving fourth user input, redisplaying said first bounded region on said screen.

8. The method of Claim 1, wherein each of said first bounded region and said second bounded region share a same center point, and the method further comprises:
in response to receiving third user input, changing a size of said first bounded region from a first size to a second size through a series of one or more intermediate sizes,
wherein said center point does not move on said screen during the changing of the size of said first bounded region, and
wherein said second portion of visual information is depicted at a same level of magnification during the changing of the size of said first bounded region.

9. The method of Claim 1, further comprising:
in response to receiving third user input, causing a grid to be displayed over said second portion of said visual information, wherein said grid identifies pixels in second portion of said visual information;
in response to receiving fourth user input, changing a magnification level of the display of said second portion of said visual information; and
in response to detecting that said magnification level of said second portion of said visual information exceeds a threshold, ceasing to display said grid over said second portion of said visual information without receiving a request, from a user, to cease displaying said grid.

10. The method of Claim 1, further comprising:
in response to receiving third user input, changing a magnification level at which said second portion of said visual information is displayed.

11. The method of Claim 1, wherein said object is a first object, and wherein the method further comprises:
displaying one or more additional objects, in addition to said first object, on said screen, wherein the one or more additional objects includes a particular object;
in response to receiving third user input associated with said particular object, displaying said particular object, which includes displaying
(a) within a first particular bounded region indicated by a first particular visual indicator, a first particular portion of the visual information; and
(b) a second particular visual indicator indicating a second particular bounded region that is a second particular portion of the visual information;
wherein the object operates in a plurality of modes that includes at least said focus-on-loupe mode and said focus-on-cursor mode;
while said particular object is operating in said focus-on-loupe mode, then displaying, within the first particular bounded region, at a
magnification level that is greater than the magnification level of the visual information that is outside of the first particular bounded region, the second particular portion of the visual information, and in response to receiving fourth user input, while said particular object is operating in said focus-on-loupe mode, switching to operating in said focus-on-cursor mode; while said particular object is in said focus-on-cursor mode, displaying within the first particular bounded region, at a magnification level that is greater than the magnification level of the visual information that is outside of the first particular bounded region, a particular third portion of the visual information centered upon the current location of the mouse pointer.

12. The method of Claim 1, further comprising: receiving third user input that requests a change to the visual appearance of said visual information; prior to making said change to said visual information, updating the display of said second portion of said visual information to reflect said change; in response to receiving fourth user input that accepts said change, making said change to said visual information.

13. The method of Claim 1, wherein said first bounded image is identified by an object, and wherein said object displays information about the color and luminance values of a portion of said visual information identified by said object.

14. A machine-implemented method for magnifying portions of visual information on a screen, comprising: displaying, within a first bounded region on a screen, a magnified visual depiction of a portion of said visual information; in response to receiving user input, automatically moving, on said screen, said first bounded region, through a series of intermediate positions arranged in a line, from an initial position to an end position that is identified by a mouse pointer,
wherein said series of intermediate positions are determined based upon said initial position and said end position and are not determined based on movement of said mouse pointer.

15. A machine-implemented method for magnifying portions of visual information on a screen, comprising:
   an operating system maintaining instructions for switching a displayed object from a focus-on-loupe mode to a focus-on-cursor mode, comprising:
   while said displayed object is operating in said focus-on-loupe mode, then displaying, within a first bounded region indicated by a first visual indicator, a magnified visual depiction of a portion of said visual information displayed on said screen indicated by a second visual indicator; and
   in response to receiving user input to switch to the focus-on-cursor mode, the operating system causing said displayed object to display a second magnified visual depiction of a second portion of said visual information displayed on said screen that is centered upon a current location of a mouse pointer.

16. The method of Claim 1, further comprising:
   in response to receiving third user input while said object is operating in said focus-on-cursor mode, switching to operating in said focus-on-loupe mode.

17. The method of Claim 1, further comprising:
   in response to receiving third user input while said object is operating in either said focus-on-cursor mode or said focus-on-loupe mode, switching to operating in a cursor-attached mode;
   while said object is in said cursor-attached mode, said object becomes the mouse pointer.

18. A machine-readable medium carrying instructions, wherein execution of the instructions by one or more processors causes the one or more processors to perform the method recited in any one of Claims 1-16 or 46-47.
19. An apparatus for magnifying selected portions of visual information on a screen, comprising:
   one or more processors; and
   a machine-readable medium carrying instructions, wherein execution of the instructions by the one or more processors causes the apparatus to perform the method recited in any one of Claims 1-16 or 46-47.