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(54) **SYSTEM AND METHOD FOR RAPID IMAGE SEQUENCE DEPTH ENHANCEMENT WITH TRANSLUCENT ELEMENTS**

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G06K 9/00 (2006.01)

(52) **U.S. Cl.**
USPC **382/284**; 382/154; 382/275; 382/291; 358/3.26; 358/3.27

(58) **Field of Classification Search**
USPC 382/275, 278, 284, 291; 358/3.26, 3.27
See application file for complete search history.

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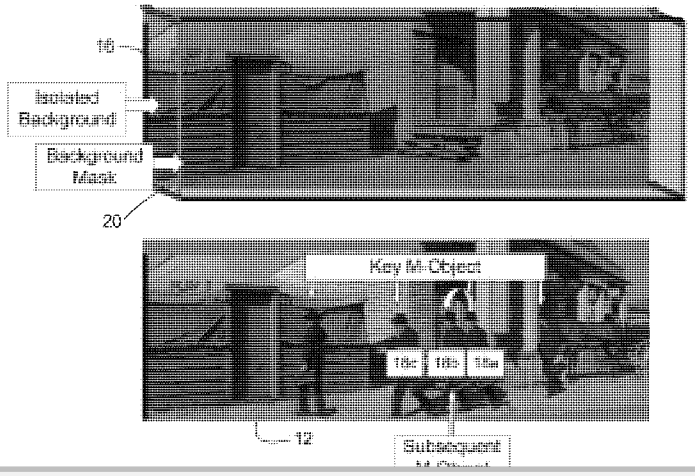
(57) **ABSTRACT**

Motion picture scenes to be colorized/depth enhanced (2D→3D) are broken into separate elements, backgrounds/sets or motion/onscreen-action. Background and motion elements are combined into composite frame which becomes a visual reference database that includes data for all frame offsets used later for the computer controlled application of masks within a sequence of frames. Masks are applied to subsequent frames of motion objects based on various differentiating image processing methods, including automated mask fitting/reshaping. Colors and/or depths are automatically applied to masks throughout a scene from the composite background, translucent, motion objects. Areas never exposed by motion or foreground objects in a series of images may be partially or fully realistically drawn or rendered and applied to the occluded areas of the background and then automatically applied throughout the images to generate of minimal artifact or artifact-free secondary viewpoints when translating foreground objects horizontally during 2D→3D conversion.

20 Claims, 82 Drawing Sheets
(69 of 82 Drawing Sheet(s) Filed in Color)



Related U.S. Application Data

is a continuation-in-part of application No. 12/976,970, filed on Dec. 22, 2010, now Pat. No. 8,401,336, which is a continuation-in-part of application No. 12/913,614, filed on Oct. 27, 2010, now Pat. No. 8,396,328, which is a continuation-in-part of application No. 12/542,498, filed on Aug. 17, 2009, now Pat. No. 7,907,793, which is a continuation-in-part of application No. 12/032,969, filed on Feb. 18, 2008, now Pat. No. 7,577,312, which is a continuation of application No. 11/324,815, filed on Jan. 4, 2006, now Pat. No. 7,333,670, which is a division of application No. 10/450,970, filed as application No. PCT/US02/14192 on May 6, 2002, now Pat. No. 7,181,081.

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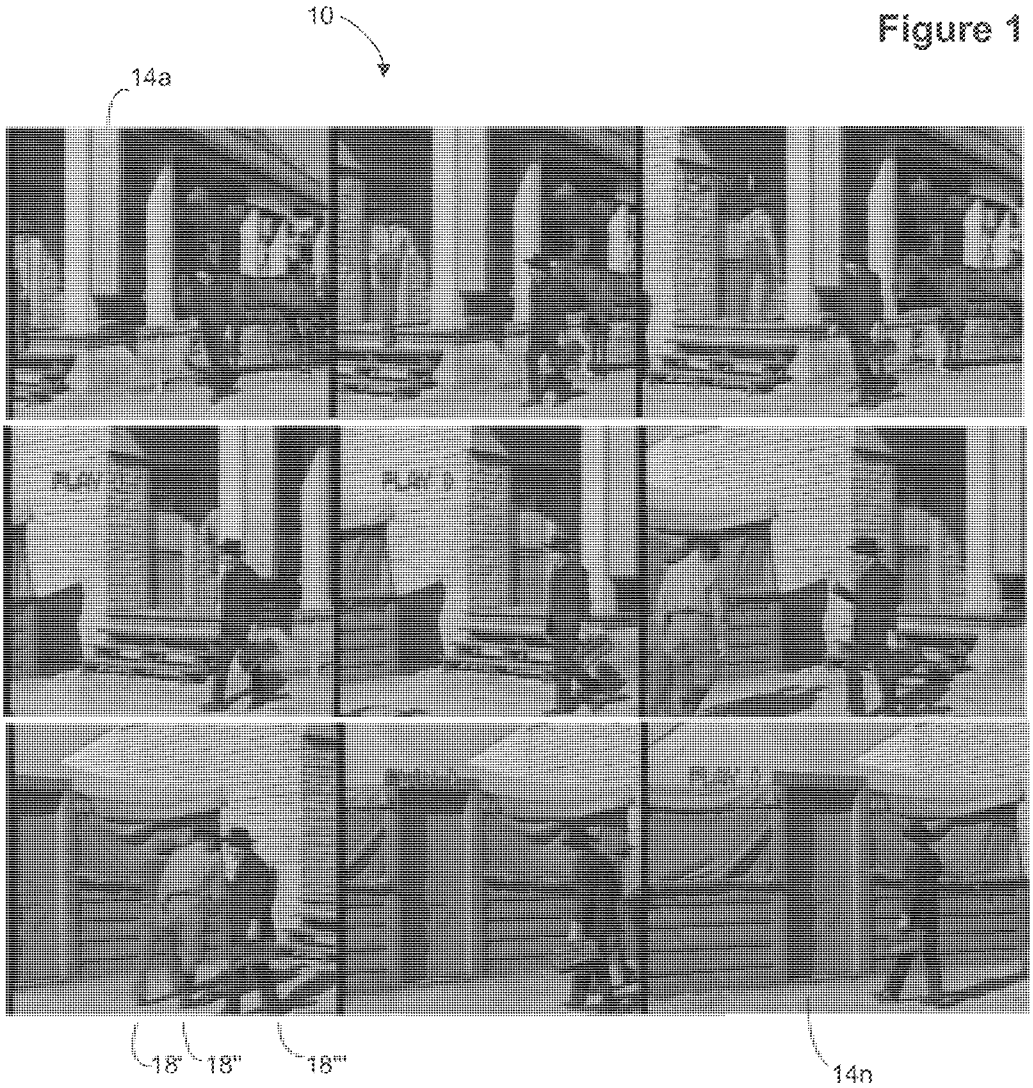
Figure 1



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