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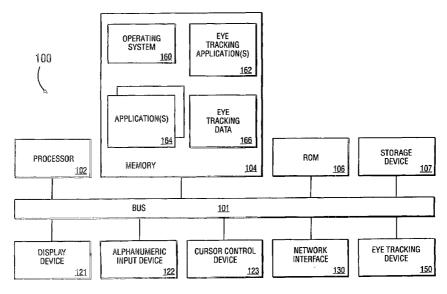
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the begin-

(54) Title: TECHNIQUES FOR FACILITATING USE OF EYE TRACKING DATA



(57) Abstract: Individual eye tracking data (100) can be used to determine whether an individual has actually looked at a particular region of a visual field. Aggregation of data corresponding to multiple individuals can provide trends and other data useful for designers of graphical representation (e.g., Web pages, advertisements) as well as other indicates both regions viewed and regions not viewed, can be accomplished using several different techniques. For example, percentages of the number of viewers that viewed a particular region can be represented as a particular color, or the underlying image being viewed can be blurred based on and acuity gradient and the number of individuals viewing various regions. The various regions represented as viewed can be selected based on the type of viewing activity (e.g., reading, gazing) is associated with a particular region.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/39696

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : A61B 3/10, 3/14, 3/00; G09G 5/08; G03B 17/00 US CL : 351/205, 209, 210, 246; 345/157, 158; 396/51 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED				
Minimum documentation searched (classification system followed by classification symbols) U.S.: 351/205, 209, 210, 246; 345/157, 158; 396/51				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where a	ppropriate, of the relevant passages	Relevant to claim No.	
X Y	US 2001/0011211 A1 (BUSHEY et al) 02 August 2	001 (02.08.2001), entire document.	1-3, 5-7, 11-18, 20- 22, 26-31, 34-36	
1	ı		4, 8-10, 23-25, 32, 33, 37-44	
Y	US 6,102,870 (EDWARDS) 15 August 2000 (15.08.2000), entire document.		1-3, 7, 11-18, 21, 26- 31, 34-36	
Y	US 6,070,098 A (MOORE-EDE et al) 30 May 2000 (30.05.2000), entire document. 11-15, 26-28		11-15, 26-28	
Y,P	US 2002/0107972 A1 (KEANE) 08 August 2002 (08.08.2002), entire document.		1-5, 7, 11, 12, 15-21, 26, 27, 39-46	
Y	US 6,067,565 A (HORVITZ) 23 May 2000 (23.05.2000), entire document.		7, 11, 12, 39-46	
A,P	US 2002/0015064 A1 (ROBOTHAM et al) 07 February 2002 (07.02.2002), edocument.		8-10, 23-26, 32, 33, 37, 38	
Α	US 5,651,107 A (FRANK et al) 22 July 1997 (22.07.1997), entire document.		8-10, 23-26, 32, 33, 37, 38	
	documents are listed in the continuation of Box C.	See patent family annex.		
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