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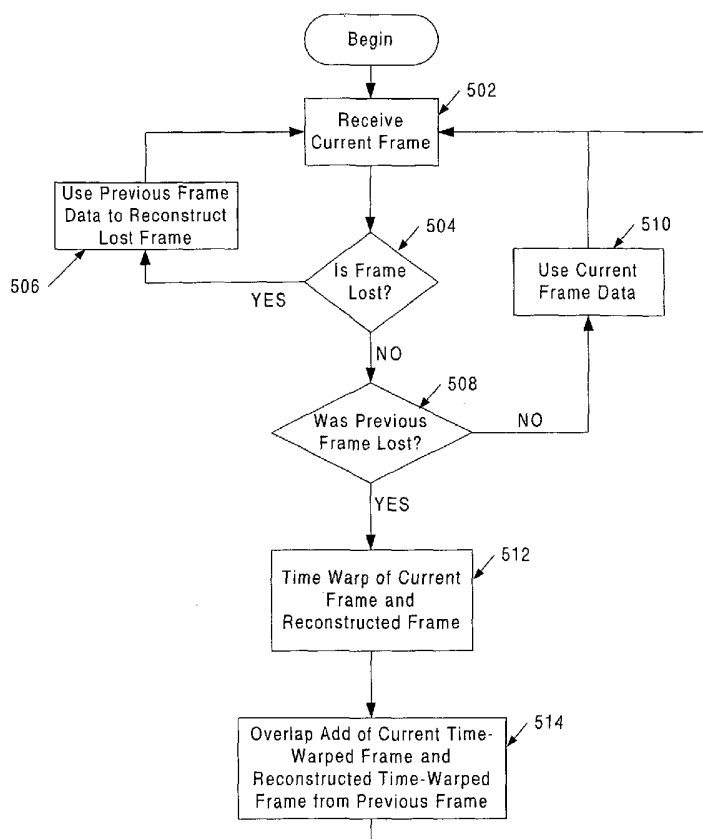
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[Continued on next page]

(54) Title: RECOVERING AN ERASED VOICE FRAME WITH TIME WARPING



(57) Abstract: An approach to reduce the quality impact due to lost voiced frame data is presented. The decoder reconstructs the lost frame using the pitch track from a directly prior frame. When the decoder receives the next frame data, it makes a copy of the reconstructed frame data and continuously time warping it and the received frame data so that the peaks of their pitch cycles coincide. Subsequently, the decoder fades out the time-warped reconstructed frame data while fading in the time-warped received frame data. Meanwhile, the endpoint of the received frame data remains fixed to preclude discontinuity with the subsequent frame.

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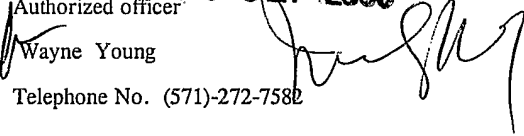
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# INTERNATIONAL SEARCH REPORT

International application No.

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<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(7) : G10L 13/00, 13/06; G06F 11/00 US CL : 704/207, 258; 714/6 According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) U.S. : 704/207, 241, 258; 714/3, 6 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		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y, E	US 2002/0120309 (KURITTU et al) 24 June 2004 (24.06.2004), paragraphs 77-89.	1-21
Y	US 5,909,663 (IJIJIMA et al) 01 June 1999 (01.06.1999), column 35, lines 35-67.	1-21
Y, E	US 6,889,183 B1 (GUNDUZHAN et al) 03 May 2005 (03.05.2005), column 4, line 9- column 5, line 65.	1-3, 5-6, 8-10, 12-13, 15-17, and 19-20
Y	US 6,169,970 B1 (KLEJIN) 02 January 2001 (02.01.2001), column 9, line 57- column 10, line 26.	1-3, 5-6, 8-10, 12-13, 15-17, and 19-20
A	US 4,751,737 (GERSON et al) 14 June 1988 (14.06.1988), column 4, line 58- column 5, line 4.	1, 8, 15
A, E	US 6,775,654 B1 (YOKOYAMA et al) 10 August 2004 (10.08.2004), column 20, lines 20-27.	1, 8, 15
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