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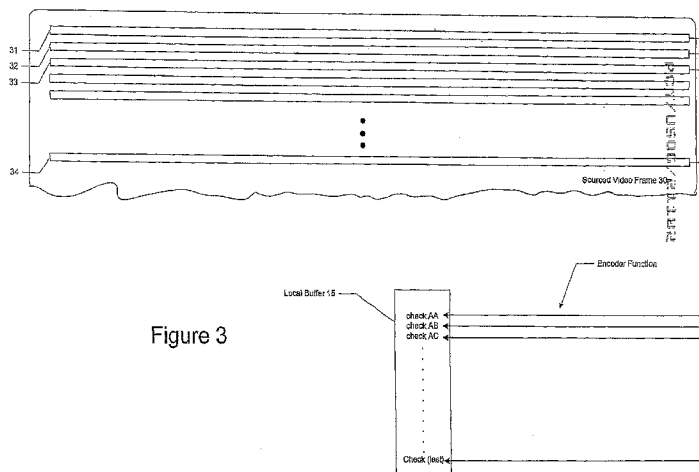


Figure 3

(57) Abstract: A video compression encoder which does not require a video frame buffer is disclosed. Without a frame buffer, incoming pixels can not be compared to pixels previously sent to the decoder. Instead, the disclosed encoder only stores check values for groups of pixels sent. If a group's check value has not changed, the encoder sends a command to the decoder not to change that pixel group. Also, without a frame buffer, an incoming video frame can not be captured and later sent to the decoder as network throughput permits. Instead, if throughput is insufficient to send an encoded group of pixels, the encoder leaves the check value for that group unchanged and sends a command instructing the decoder not to change those pixels. This defers updating that group until the next screen update is sent to the decoder. Grouping of pixels can be done in any fashion, for example; a group can be a single video line, a portion of a line, multiple lines or screen rectangles containing portions of multiple lines.

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## INTERNATIONAL SEARCH REPORT

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<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(8) - H04N 11/04 (2008.04) USPC - 375/240.01 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) USPC: 375/240.01 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched USPC: 375/E7.133; 375/E7.264; 375/E7.265 (text search - see terms below) Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PubWEST(USPT,PGPB,EPAB,JPAB); Google Search Terms: encod\$, video, image, line, line based, compare, copy, check, check value, checksum, frame, previous frame, prior frame, command																						
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>																						
<table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>US 2005/0069034 A1 (DAMBRACKAS) 31 March 2005 (31.03.2005), entire document especially paras [0038], [0046]-[0049]</td> <td>1</td> </tr> <tr> <td>Y</td> <td>US 5,864,681 A (PROCTOR et al.) 26 January 1999 (26.01.1999), entire document especially col 9, lns 41-49; col 10, lns 1-7</td> <td>1</td> </tr> <tr> <td>Y</td> <td>US 4,142,243 A (BISHOP et al.) 27 February 1979 (27.02.1979), entire document especially the Abstract</td> <td>1</td> </tr> <tr> <td>Y</td> <td>CHRYSAFIS et al., 'Line-Based, Reduced Memory, Wavelet Image Compression' [online], March, 2000 [retrieved on 2008-08-20], Retrieved from the Internet:&lt;URL:http://sopl.usc.edu/~ortega/Students/chrysalis/doc/ChristosChrysalis_line_based_1P2000.pdf&gt;</td> <td>1</td> </tr> <tr> <td>A</td> <td>US 2005/0089091 A1 (KIM et al.) 28 April 2005 (28.04.2005), entire document</td> <td>1</td> </tr> <tr> <td>A</td> <td>US 4,369,464 A (TEMIME) 18 January 1983 (18.01.1983), entire document</td> <td>1</td> </tr> </tbody> </table>	Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	Y	US 2005/0069034 A1 (DAMBRACKAS) 31 March 2005 (31.03.2005), entire document especially paras [0038], [0046]-[0049]	1	Y	US 5,864,681 A (PROCTOR et al.) 26 January 1999 (26.01.1999), entire document especially col 9, lns 41-49; col 10, lns 1-7	1	Y	US 4,142,243 A (BISHOP et al.) 27 February 1979 (27.02.1979), entire document especially the Abstract	1	Y	CHRYSAFIS et al., 'Line-Based, Reduced Memory, Wavelet Image Compression' [online], March, 2000 [retrieved on 2008-08-20], Retrieved from the Internet:<URL:http://sopl.usc.edu/~ortega/Students/chrysalis/doc/ChristosChrysalis_line_based_1P2000.pdf>	1	A	US 2005/0089091 A1 (KIM et al.) 28 April 2005 (28.04.2005), entire document	1	A	US 4,369,464 A (TEMIME) 18 January 1983 (18.01.1983), entire document	1	<input type="checkbox"/> Further documents are listed in the continuation of Box C.
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774																					