

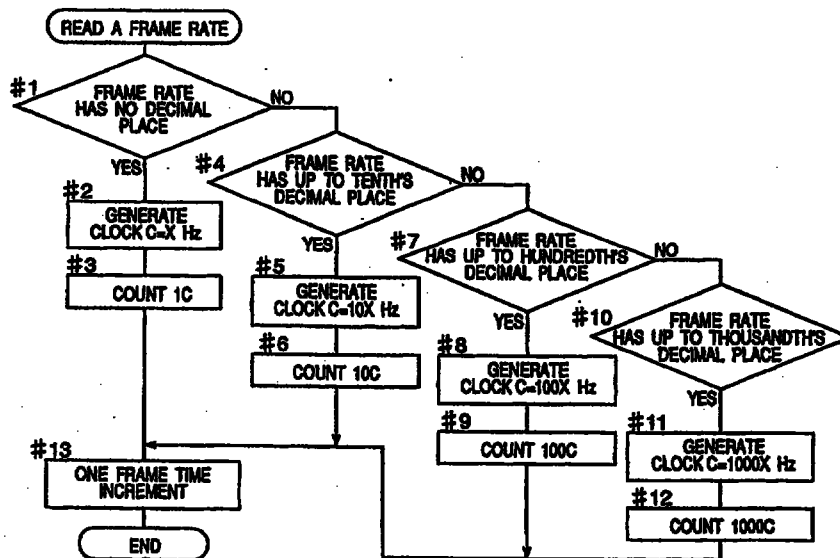


200002451-3

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : H04N 7/62, 7/26	A1	(11) International Publication Number: WO 00/38431 (43) International Publication Date: 29 June 2000 (29.06.00)
(21) International Application Number: PCT/JP99/07140 (22) International Filing Date: 20 December 1999 (20.12.99) (30) Priority Data: 10/362511 21 December 1998 (21.12.98) JP (71) Applicant: MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD. [JP/JP]; 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501 (JP). (72) Inventors: SHEN, Sheng, Mei; Block 7, Gim Moh Road, #12-271, Singapore 270007 (SG). TAN, Thiow, Keng; Block 135, Serangoon Avenue 3, #09-16, Singapore 556114 (SG). (74) Agents: AOYAMA, Tamotsu et al.; Aoyama & Partners, Imp Building, 3-7, Shiromi 1-chome, Chuo-ku, Osaka-shi, Osaka 540-0001 (JP).	(81) Designated States: BR, CN, ID, IN, KR, MX, SG. Published With international search report.	

(54) Title: APPARATUS AND METHOD FOR TIME STAMPING USING MODULO TIME BASE AND TIME INCREMENT RESOLUTION



(57) Abstract

A time stamping apparatus uses modulo time base and time increment resolution for efficiently encoding a local time base for different video/audio sources embedded in the compressed data. The local time base is mainly encoded in two parts: a modulo time base that indicates the specific interval in the reference time base; and a time base increment relative to the reference time. Two forms of time base increment are used to allow for the possibility of different encoding order and displaying order. A resolution for time base increment is introduced here to allow video/audio sources of different frame rates to be encoded and multiplexed into one bitstream. Also, bit saving is also obtained for some of the video frame rates. The parameter of time base increment resolution can be placed in the header of group of video object plane.