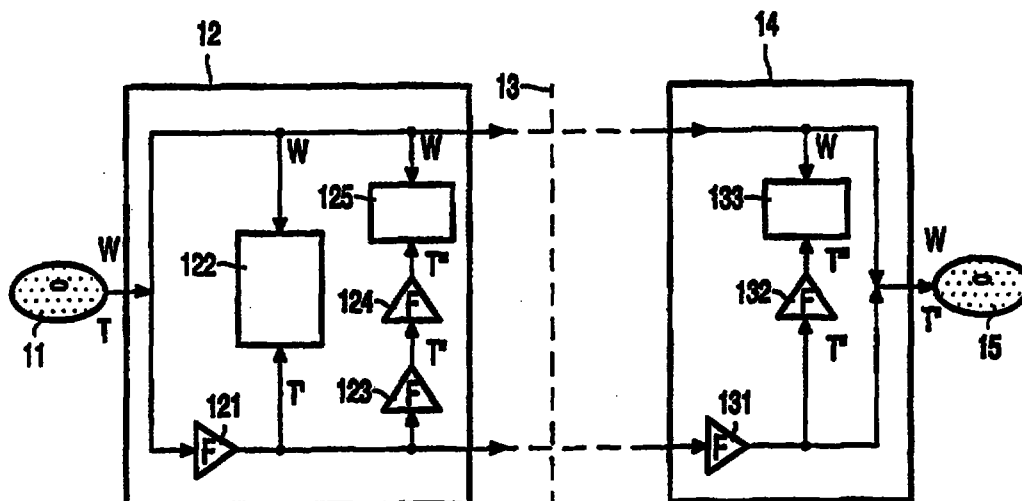




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : H04N 7/50	A2	(11) International Publication Number: WO 98/33325 (43) International Publication Date: 30 July 1998 (30.07.98)
(21) International Application Number: PCT/IB98/00087 (22) International Filing Date: 22 January 1998 (22.01.98) (30) Priority Data: 97200165.5 27 January 1997 (27.01.97) EP (34) Countries for which the regional or international application was filed: NL et al. 97201237.1 25 April 1997 (25.04.97) EP (34) Countries for which the regional or international application was filed: NL et al. 97201470.8 15 May 1997 (15.05.97) EP (34) Countries for which the regional or international application was filed: NL et al. (71) Applicant: KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL). (71) Applicant (for SE only): PHILIPS NORDEN AB [SE/SE]; Kottbygatan 7, Kista, S-164 85 Stockholm (SE). (72) Inventor: LINNARTZ, Johan, Paul, Marie, Gerard; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).		(74) Agent: FAESSEN, Louis, M., H.; Internationaal Octrooibureau B.V., P.O. Box 220, NL-5600 AE Eindhoven (NL). (81) Designated States: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>Without international search report and to be republished upon receipt of that report.</i>

(54) Title: METHOD AND SYSTEM FOR TRANSFERRING CONTENT INFORMATION AND SUPPLEMENTAL INFORMATION RELATING THERETO

**(57) Abstract**

A system for transferring content information and supplemental information relating thereto is described, e.g. audio, video and supplementally author or copy-control status via an optical disc. An encoded signal is generated comprising a watermark pattern representing supplemental information. The watermark pattern cannot be changed without seriously affecting the quality of the content information after reproduction. According to the invention a control pattern is transferred also, while the watermark is generated by applying a one-way function to the control pattern. This has the advantage, that any change to the watermark or the control pattern can be detected easily, because it is computationally not feasible to calculate a new control pattern for a changed watermark. Therefore the supplemental information is well protected against manipulation. Alternatively a malicious party will be forced to fully replace the watermark pattern, thereby maximally affecting the quality of the reproduced content. In a copy control method allowing a first generation copy ("copy-once") the original control pattern is processed 3 times by the one-way function for generating the watermark, while each player or recorder processes the control pattern once before outputting/recording it, so forming a cryptographically protected down-counter.