

## RECOMMENDATION ITU-R BR.780-1\*

**Time and control code standards for the international exchange of television programmes on magnetic tapes\*\***

(1992-2002)

The ITU Radiocommunication Assembly,

*considering*

- a) that to assist in the location of required sequences on tape for editing programmes, to enable complex computer-controlled video tape operations to be undertaken, and to synchronize programme elements stored on different supports, the recording of time and control data on tape is beneficial;
- b) that two types of time and control codes exist:
  - the code recorded on a longitudinal track with audio characteristics (longitudinal time code: LTC);
  - the code recorded as a signal inserted in the field-blanking period of the video signal (vertical-interval time code: VITC);
- c) that both types of time and control codes have been standardized by the IEC;
- d) the contents of Opinion ITU-R 16,

*recommends*

**1** that when international exchange of programmes is made on video tapes containing time and control code, the LTC specified in IEC Publication 461, 2nd edition, should be used, and recorded according to the specifications of the VTR format, as specified in Recommendations ITU-R BR.469, ITU-R BR.657 and ITU-R BR.778;

**2** that when international exchange of programmes is made on analogue VTR tapes containing VITC in addition to LTC, the recorded VITC should be as specified in IEC Publication 461, 2nd edition;

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\* Radiocommunication Study Group 6 made editorial amendments to this Recommendation in 2001 in accordance with Resolution ITU-R 44.

\*\* International programme exchange is defined as the transmission of television or sound programme material (or components thereof) among professional parties in different countries. It should be based on internationally agreed and widely employed technical standards or operating practices, except by prior bilateral agreement among the parties involved.

3 that for analogue television tape recordings on 625-line standards intended for the international exchange of programmes:

- the VITC, if recorded, shall be recorded on television lines 19 and 21 (332 and 334) only or, where line 21 is used for caption exchange, on lines 18 and 20 (331 and 333) only;
- the time element of the VITC, after decoding, shall agree with the time element of the LTC, after decoding;
- no correspondence is needed between the user data in the VITC and LTC;

4 that the correct relationship between time code information and the associated video signal should not be modified during dubbing. Appropriate means for counteracting the various kinds of delays which could disrupt this correct relationship should be envisaged;

5 that user bits should not carry time-critical information.

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