

QUESTION ITU-R 95/6*

Use of computer technology in television broadcasting applications

(1997)

The ITU Radiocommunication Assembly,

considering

- a) that the rapid increase of introduction of computer technologies in TV broadcasting applications;
- b) that digital techniques are in wide use and that video signals in digital form facilitate their processing by general purpose computer hardware;
- c) that general purpose computers are a potentially low-cost tool for processing video data;
- d) that different parameters are used in computer and television displays (e.g. pixels/line, field rate, aspect ratio, colorimetry and blanking);
- e) that there exist Recommendations for the digital representation of SDTV and HDTV signals (e.g. Recommendations ITU-R BT.601, ITU-R BT.656, ITU-R BT.709 and ITU-R BT.1120);
- f) that the ITU-R is studying the harmonization of standards of TV systems for broadcast and non-broadcast use;
- g) that studies on digital broadcasting systems including interactive applications are being conducted in the ITU-R;
- h) that the harmonization of displays for both television and computers is being considered in some areas;
- j) that the use of improved TV displays is being considered at various levels of the computer industry;
- k) that the future television receiver will be designed to have intelligent features;
- l) that the studies on Integrated Receiver Decoder (IRD) terminals are being conducted in several standardization organizations;
- m) that computer systems have the possibility to use new broadcasting technology for future high-resolution image representations;
- n) that much image generation and processing software does not take into account the constraints of the analogue domain (e.g. bandwidth, rise time);
- o) that compatibility between TV broadcasting technology and computer systems would be preferable,

* This Question should be brought to the attention of the International Standardization Organization (ISO), the International Electrotechnical Commission (IEC) and the Telecommunication Standardization Bureau.

decides that the following Question be studied

- 1 What is the current situation regarding the use of computer technology in TV broadcasting applications?
- 2 What are the parameter differences between TV broadcasting technology and computer applications (e.g. display, processing speed, existing image file structures, aspect ratio and gamma)?
- 3 What are the practical and potential difficulties associated with the use of computer technology?
- 4 What are the problems arising from the use of computer technology in television image generation, processing and broadcasting?
- 5 What is the impact of the use of data networks to carry both computer data and real-and-non real time television signals?
- 6 What are the user requirements for networks and a generic file structure to facilitate the transfer of television image data between different computer systems?
- 7 What are the possibilities of harmonizing the essential parameters of computer and TV broadcasting technologies?
- 8 What areas in the application of computer technology outside the production process require further study and what programme of work is required?
- 9 In which areas are Recommendations required, to enable the interworking of computer and television systems?
- 10 What are the necessary liaisons with the International Electrotechnical Commission (IEC), the International Organization for Standardization (ISO), the ITU-T and the computer industry to ensure a coordinated implementation of the new technologies that are developed?

further decides

- 1 that the results of the above studies should be included in (a) Recommendation(s);
 - 2 that the above studies should be completed by 2006.
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