

International Workshop Agreement

IWA 3

Image safety — Reducing the incidence of undesirable biomedical effects caused by visual image sequences

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*Sécurité de l'image — Réduction de l'incidence des effets biomédicaux
indésirables causés par des séquences d'images visuelles*

Reference number
IWA 3:2005(E)



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). ISO's technical work is normally carried out through ISO technical committees in which each ISO member body has the right to be represented. International organizations, governmental and nongovernmental, in liaison with ISO, also take part in the work.

In order to respond to urgent market requirements, ISO has also introduced the possibility of preparing documents through a workshop mechanism, external to its normal committee processes. These documents are published by ISO as International Workshop Agreements. Proposals to hold such workshops may come from any source and are subject to approval by the ISO Technical Management Board which also designates an ISO member body to assist the proposer in the organization of the workshop. International Workshop Agreements are approved by consensus amongst the individual participants in such workshops. Although it is permissible that competing International Workshop Agreements exist on the same subject, an International Workshop Agreement shall not conflict with an existing ISO or IEC standard.

An International Workshop Agreement is reviewed after three years, under the responsibility of the member body designated by the Technical Management Board, in order to decide whether it will be confirmed for a further three years, transferred to an ISO technical body for revision, or withdrawn. If the International Workshop Agreement is confirmed, it is reviewed again after a further three years, at which time it must be either revised by the relevant ISO technical body or withdrawn.

Attention is drawn to the possibility that some of the elements of this International Workshop Agreement may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Workshop Agreement IWA 3 was approved following consultations with and comments by interested parties on a draft framed based on discussions at a workshop organized jointly by the Japanese Industrial Standards Committee (JISC) and the National Institute of Advanced Industrial Science and Technology (AIST), and held in Tokyo, Japan, in December 2004. Appreciation is extended to the Japanese Industrial Standards Committee (JISC) and the National Institute of Advanced Industrial Science and Technology (AIST) for both organizing the workshop and preparing for this International Workshop Agreement.

Supplement

This proposal was prepared in Japan during the workshop held in Tokyo on image safety and was created under the leadership of the National Institute of Advanced Industrial Science and Technology (AIST) and the Japanese Industrial Standard Committee (JISC) with the participation of the following members:

- Takehiko Bando (Niigata University, Japan);
- Jelte Bos (TNO, Netherlands);
- Kazuhiko Ukai (Waseda University, Japan);
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- Arnold Wilkins (University of Essex, United Kingdom).

Notable contributions to this document were also given by the following participants:

- Graham F. A. Harding (Aston University, United Kingdom);
- Tom Robson (CRS Ltd., United Kingdom);
- Takeo Takahashi (Yaotome Clinic, Japan);
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- Makoto Yoshizawa (Tohoku University, Japan);
- Tohru Kiryu (Niigata University, Japan);
- Naoki Kobayashi (NTT, Japan);
- Takayuki Ito (NHK Lab., Japan);
- Tony Carpenter (CRS Ltd., United Kingdom);
- Shigeru Chiba (Sharp, Japan).

Workshop resolutions

This International Workshop on Image Safety adopted the following resolutions on which the International Workshop Agreement is based.

- a) This International Workshop on Image Safety (hereafter International Workshop 3) considers this International Workshop Agreement to be the first step in a process that may eventually lead to the development of ISO International Standards on image safety, which will supply guidelines intended to reduce the incidence of undesirable biomedical effects caused by visual image sequences. The process will continue to be open to the participation of all interested parties, according to the ISO procedures.
- b) This International Workshop 3 defines concerns of stationary and moving images that are communicated through various media. It may therefore apply to several different types of image providers including internet providers, web page producers, graphic artists, video and motion picture production companies, computer/video game software developers and publishers, imaging device manufacturers, media companies and distributors.
- c) This International Workshop 3 recognizes that there are certain undesirable biomedical effects associated with visual images. Although incidences of the effects may be low, the effects may be considerable. Therefore, accurate knowledge of the biomedical effects is important for all categories of image providers as well as those who view images.
- d) This International Workshop 3 recommends that the issue be handled with an appropriate balance between the varying interests of viewers, and the interests involved in the provision of images including not only image providers' interests but also society's interest in promoting freedom of expression and artistic creativity, the balance being settled on the basis of scientific knowledge.
- e) This International Workshop 3 recognizes that viewers and image providers may benefit from information about image safety, both generally and as concerns individual products. Such information is likely to be of most use before viewers are exposed to visual images. It is recognized that any proposed guidelines should be comprehensive and easily interpreted so that they can be applied without difficulty.
- f) This International Workshop 3 considers the scope of this agreement to cover all aspects of image safety while recognizing that the International Telecommunications Union (ITU-R, SG6) has considered the image safety issues in relation to TV broadcasting.
- g) This International Workshop 3 collected scientific information from experts with respect to three undesirable biomedical effects:
 - photosensitive seizures,
 - visually-induced motion sickness, and
 - visual fatigue.

Scientific knowledge will be critical in the development of any guidelines in the ISO International Standards on image safety, particularly any involving numerical guidelines. Such guidelines will require research that is designed to consider the effects of various image properties in the various visual media.

- h) This International Workshop 3 recognized that the workshop participants could not fully represent the various interests involved and expressed the desire for greater participation of stakeholders in the process outlined in a) above.