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North American Broadcasters Association

LOUDNESS METERING AND REFERENCE PROGRAMME LOUDNESS

The North American Broadcasters Association (NABA, www.nabanet.com) is an association of broadcasters in Canada, Mexico, and the United States, and the NABA Technical Committee is its standing technical body. NABA is thus in a position to present the technical viewpoints of the most authoritative association of professional North American Broadcasters in television and sound programme production, post-production, and distribution for terrestrial, satellite, and cable broadcasting.

NABA is a Sector Member of ITU-R and a long-time participant in ITU-R Study Groups, Working Parties, Task Groups, Rapporteur Groups, etc. NABA numbers among its members Chairmen, Vice-Chairmen and members of the above groups. NABA also participates widely in the ITU work on radio, television and multimedia services and has a strong interest in programme production and distribution.

In this context, NABA has considered the preliminary draft new Recommendation on Reference Loudness that was drafted by WP 6J during its October 2006 meeting, Document 6J/78, Annex 3. NABA believes that a document on this topic would be useful, and proposes the modifications shown. This document should be finalized during the May 2008 meeting of WP 6G.

Source: Document 6J/78, Annex 3

DRAFT NEW RECOMMENDATION BS.XXX

Dialogue loudness for the international exchange of television programmes

(Question ITU-R 58/6, 77-1/6)

Summary

This new Recommendation specifies operating practices that will improve loudness uniformity of television audio programmes. The preferred method is to provide, along with the audio essence, metadata indicating the average loudness of typical dialogue, as measured by the method specified in Recommendation ITU-R BS.1770. When metadata is not provided, a target loudness value is specified.

Scope

This Recommendation deals with dialogue loudness in digital audio programs for international programme exchange. It specifies that the loudness measurement method specified in Recommendation BS.1770 be used to set the metadata value indicating dialogue level, and, in the absence of metadata, specifies a target value for dialogue loudness.

The ITU Radiocommunication Assembly,

considering

- a) that the audience of broadcast programmes have frequently requested that the loudness of sound programmes should be reasonably uniform irrespective of different programme sources and different programme types;
- b) that it would be very desirable if reasonable uniformity in the loudness of sound programmes and of sound accompanying television programmes were also achieved on internationally exchanged programmes;
- c) that Recommendation ITU-R BS.1726 specifies use of either -18 dBFS or -20 dBFS for “alignment level”, but that “alignment level” does not directly correspond to audio loudness;
- d) that Recommendation ITU-R BS.1770 “Algorithms to measure audio programme loudness and true-peak audio level” specifies a method for the measurement of audio programme loudness;

- e) that Recommendation ITU-R BS.1771 “Requirements for loudness and true-peak indicating meters” specifies the requirements for loudness meters that employ the algorithms specified in Recommendation ITU-R BS.1770, thus opening the door to a worldwide use of the loudness meters that behave in a consistent manner and provide a consistent indication of loudness on the same programme, irrespective of programme content;
- f) that the programme element that is of most concern to the audience is dialogue, and that in general it is the long term subjective level of dialogue that should be matched between programmes in order to satisfy listeners;
- g) that metadata indicating dialogue level may be provided in combination with the audio essence, and that this metadata may be used by the broadcaster or passed onto the consumer equipment in order to normalize audio levels;
- h) that when metadata indicated dialogue level is not provided, programme interchange can be facilitated by setting dialogue loudness to a target level;

recommends

1 that for international programme exchange, when metadata indicating the loudness of typical dialogue in digital audio programmes is provided, the metadata value indicating dialogue level should correspond to the average loudness of typical dialogue as measured by the algorithm specified in Recommendation ITU-R BS.1770;

2 that for international programme exchange, when metadata indicating dialogue level is not provided (Note 1), the target loudness of typical dialogue in digital audio programmes should generally (Note 2) correspond to an average indication of -24 LKFS as measured by the algorithm specified in Recommendation ITU-R BS.1770.

NOTE 1 – The provision of metadata indicating dialogue loudness allows the potential for uniform dialogue loudness across programmes without impacting or constraining programme production practice, and is thus the preferred operating mode. Until provision of this metadata becomes commonplace, operation at a target dialogue level is a useful interim operating procedure.

NOTE 2 - There may be occasions where a departure may be necessary or desired for various reasons, such as overriding creative requirements, legacy programmes, the difficulty of measuring just the dialogue element in a fully mixed program, or the need to match loudness of heavily compressed sound recordings.