

RECOMMENDATION ITU-R BT.1680

Baseband imaging format for distribution of large screen digital imagery applications intended for presentation in a theatrical environment

(Question ITU-R 15/6)

(2004)

The ITU Radiocommunication Assembly,

considering

- a) that Question ITU-R 15/6 underlines the benefits to be accrued in developing technical approaches to distribution of large screen digital imagery (LSDI¹) programmes, harmonized with those established for the distribution of programmes for other applications;
- b) that such benefits could best be accrued if uniform baseband digital imaging formats were used for LSDI distribution and for other applications;
- c) that the resolution of the 1920×1080 and 1280×720 digital pixels maps meets the requirements of LSDI applications intended for presentation in a theatrical environment;
- d) that it is best to maintain a consistent format throughout the production, distribution, and exhibition chain, with minimal format conversion to ensure the best quality imagery;
- e) that the need for prompt ITU-R action on LSDI, recognized by the urgency of Question ITU-R 15/6 could be met by the approval of new recommendations for a technical solution for those LSDI applications, and these recommendations should be extended to reflect further solutions as required, when the necessary technology is developed, implemented and validated in the future,

recommends

1 that, as members of a hierarchy of LSDI formats, those specified below should be used as baseband formats for distribution of programmes for LSDI applications intended for presentation in a theatrical environment:

- Recommendation ITU-R BT.709 – Parameter values for the HDTV standards for production and international programme exchange;
- Recommendation ITU-R BT.1543 – 1280×720 , 16×9 progressively-captured image format for production and international programme exchange in the 60 Hz environment,

¹ LSDI (large screen digital imagery) is a family of digital imagery systems applicable to programmes such as dramas, plays, sporting events, concerts, cultural events, etc., from capture to large screen presentation in high-resolution quality in appropriately equipped theatres, halls and other venues.

further recommends

1 that for an expanded hierarchy of LSDI formats for future LSDI applications that may require certain resolution and scanning formats that go beyond current technical solutions or those imaging formats used in other applications an hierarchical relationship with existing Recommendations be retained.

NOTE 1 – In a projector that does not use the input image format as its display format, care should be taken during the processing to minimize artefacts.

NOTE 2 – Recommendation ITU-R BT.709 specifies the 2 mega-pixels resolution ($1\,920 \times 1\,080$) systems with the following frame rates: 60 Hz, 59.94 Hz, 50 Hz, 30 Hz, 29.97 Hz, 25 Hz, 24 Hz and 23.98 Hz.

NOTE 3 – Recommendation ITU-R BT.1543 specifies the 1 mega-pixels resolution ($1\,280 \times 720$) systems with the following frame rates: 60 Hz, 59.94 Hz, 30 Hz, and 29.97 Hz.
