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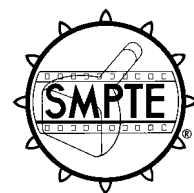
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SMPTE ENGINEERING GUIDELINE

Remote Control of Television Equipment



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1 Introduction

This guideline provides a guide to the architecture of the SMPTE/EBU EBus digital control interface and related interfaces, which were developed for the purpose of standardizing the control of television equipment. The digital control interface was developed jointly by the SMPTE and the European Broadcasting Union (EBU).

The referenced documents define the technical specification and system characteristics required to allow the control of television production and distribution equipment.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this guideline. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this guideline are encouraged to investigate the possibility of applying the most recent edition of the standards indicated below.

ANSI/SMPTE 207M-1992, Television — Digital Control Interface — Electrical and Mechanical Characteristics

SMPTE RP 113-1992, Supervisory Protocol for Digital Control Interface

SMPTE RP 138-1992, Control Message Architecture

SMPTE RP 139-1992, Tributary Interconnection

SMPTE RP 163-1992, Television — System Service Messages

SMPTE RP 170-1993, Video Tape Recorder Type-Specific Messages for Digital Control Interface

SMPTE RP 171-1993, Type-Specific Messages for Digital Control Interface of Analog Audio Tape Recorders

SMPTE RP 172-1993, Common Messages for Digital Control Interface

3 Application

3.1 Introduction

The EBus and associated interfaces establish the system characteristics required for the remote control of television equipment, from any location, by the employment of an intelligent processor which should ideally be an integral part of the controlled equipment.

This digital control interface is based on the EBus developed and documented by the SMPTE and EBU and is, therefore, made available by a multitude of manufacturers.

Both SMPTE and EBU are continuing to develop specifications for additional applications. This guideline will be updated to reference the appropriate documents as they are completed.

3.2 Overview

A function of any remote control system is to establish a connection between operational controlling and controlled devices. The EBus system is based on the concept of distributed intelligence whereby each device is attached to the system by means of an intelligent interface that will carry out the majority of local calculations and logical operations required by the device. The intelligent equipment will be called a tributary of the remote control system.