



ANSI E1.44 – 2019
Common Show File Exchange Format for
Entertainment Industry Automation Control Systems - Stage Machinery

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Interest category codes:

CP = custom-market producer
DR = dealer rental company
MP = mass-market producer

DE = designer
G = general interest
U = user

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Foreword

This standard was formulated by industry professionals working in facility and systems engineering, design, and consulting.

1 Scope

This standard is intended to address common show file requirements for automated stage machinery control systems used in entertainment venues. It establishes a minimum level of design and performance guidelines for the integrated software design of processor based machinery control equipment. The purpose of this guidance is to ensure that users will be able to transfer, modify and customize a 'least common denominator' show file for the data required to tour entertainment productions from one facility to another, even when the facilities' physical conditions, hoist inventories, and placements, and the machinery control consoles and data topology differ.

Show file control functions addressed by this standard include:

- The relation between scenery and axes
- Grouping of axes
- Show cues and their basic content with:
 - Movements of axes or groups to pre-determined positions.
 - Movements of axes or groups in a linear or rotational fashion only.
(with acceleration, constant velocity and deceleration).

At this time the standard does not include the following features, although amendments to include additional feature sets in later revisions of the standard are not precluded:

- Interrelated, dependent or interpolated movements.
- Movement effects.
- Multi-axis 3-dimensional flight-path movements.
- Rules or conditional Boolean logic.

2 Normative References

All show files shall be written in XML format.

This standard acknowledges current XML standards:

Extensible Markup Language (XML) 1.0 (Fifth Edition)
W3C Recommendation 26 November 2008 (www.w3.org/TR/xml)
ISO/IEC 10646, RFC 281, UTF 16, 16 Bit Unicode Transfer Format

3 Definitions

3.1 axis (pl. axes): used within this standard for a single "degree of freedom" (DOF) of a stage automation machine that can be used to move scenery, curtains, or other equipment on stage.

3.2 load carrying device: the component(s) of a hoist system that connect a suspended load to the lifting media (e.g. batten, pipe, truss, hook).

3.3 load attachment device: the component(s) of a machine that connect a load to the machine (e.g. a pin on a deck winch).

3.4 plaster line: an imaginary reference line that indicates where the proscenium arch or an alternate structural element (ie column, girt, wall face) is located. Typically, the plaster line runs across the stage at the back face (upstage face) of the proscenium wall perpendicular to the Center Line.

3.5 show file: the software record of motorized machinery and their movements that is used to generate site specific venue information, patch information and cues in any venue used by an entertainment production.