



D-BOX : SIMPLE MOTION CINEMA, MOVING SEATS, SICKLY TREATS.



PREFACE

D-BOX is a technology that allows seats to be controlled.

Documentation :

- **D-BOX** - Technical Note - 124-915-0001-A05 ²⁰¹⁷ - **D-BOX in SMPTE/DCI DCP**
- **D-BOX** - Technical Note - 124-915-0002-A06 ²⁰¹⁷ - **D-Cinema Distribution Requirements**
- **D-BOX** - Technical Note - 124-915-0005-A02 ²⁰¹⁷ - **Signaling D-BOX in a CPL**

DESCRIPTION

D-BOX and **4DX** are two different technologies that share the same goal: enhance immersion during a screening by using external effects (such as moving the seats) :

- **4DX** technology uses a standard DCP along with additional assets that are outside the DCP and beyond the scope of SMPTE/DCI. See the chapter **4DX**.
- **D-BOX** technology uses a specific DCP using a **specific audiotrack** to store useful data for its proper functioning which is processed by the DBOX device in the booth.

CPL : METADATA

The D-BOX track is embedded within a standard audio track on a specific channel, thus within **MainSound**.

Extension: Using **ExtensionMetadata** tag in **CompositionMetadata** section:

```
<CompositionMetadataAsset xmlns="http://www.smpte-ra.org/schemas/429-16/2014/CPL-Metadata">
  (...)
  <!-- DBOX -->
  <ExtensionMetadata scope="http://www.d-box.com/technical_notes/124-915-0005">
    <Name>D-BOX Enabled</Name>
    <PropertyList>
      <Property>
        <Name>D-BOX Motion Code Primary Stream</Name>
        <Value>true</Value>
      </Property>
      <Property>
        <Name>D-BOX Motion Code Secondary Stream</Name>
        <Value>true</Value>
      </Property>
    </PropertyList>
  </ExtensionMetadata>
  (...)
</CompositionMetadataAsset>
```

- In SMPTE, you will have this ExtensionMetadata.
- In Interop, nothing specified in the CPL (except in the ContentTitle)

Integration of reference to D-BOX in **MainSoundConfiguration** section, in **CompositionMetadata** section:

Note that this metadata is for informational purposes only, the data in [Configuration Audio](#) section are also in the MXF.

MXF : D-BOX DATA

Surprisingly, D-BOX did not choose to use a separate MXF specifically for the data useful to D-BOX, for example by using an [AuxData](#) in the CPL.

The data useful to D-BOX will be embedded into a standard **MXF** containing the film's audio tracks (MXF KLV **Sound**). The data will be on a track inside this MXF. This MXF will be the one used for the **MainSound** in the CPL.

You will find all information related to D-BOX specific MXF & KLV in [this chapter](#).