Promote your brand and efficiently deliver your channels.

Imagestore 750 from Grass Valley, a Belden Brand, is our top of the range master control and branding processor for highly automated specialty channels.

Many advanced audio features include 16 channel audio mixing/playout plus dynamic shuffling and gain control. There’s also stereo to 5.1 upmixing, four Dolby decoders/encoders and sophisticated metadata processing. Multiple, high performance graphics features include dual DVEs.

With Imagestore 750, you get the best master control solution with the best on-screen branding possible.
Imagestore 750 HD/SD Master Control and Branding Processor with Advanced Audio Processing

**KEY FEATURES**

**Multilevel branding graphics**
- Designed for high impact, multilevel channel branding
- Easy selection between SD and HD (720p or 1080i at 50 Hz and 59.94 Hz)
- Four independent keying layers with preview output
- Integral flash-based store with capacity for more than 4,000 HD/SD images
- Dual fill and key inputs allow operation with an Intuition XG graphics co-processor for the most advanced graphics effects
- Emergency Alert System (EAS) crawls and audio mix-ins
- In-vision digital/analog clock insertion with Bugclock option
- Easystext template-based, automated character generator option for data-driven graphics, such as in-show promos
- Full compatibility with Vertigo graphics automation and asset management

**Advanced audio mixing and processing**
- 16 channel audio mixing using embedded audio, and/or 8 AES pairs, for 5.1 and multilingual audio
- Dynamic shuffle and gain control
- Up to 4 Dolby decoders/encoders per Imagestore 750
- 5.1 up-mixing using Linear Acoustic upMAX technology
- Versatile Easysplay 2 audio clip player, with simultaneous playout of up to four clips (16 channels), for voiceovers
- Advanced metadata processor with support for embedded metadata (as per RP-2020), metadata switching and metadata generation
- Audio description (AD) with automated mixing of commentary track
- User-friendly audio configuration tool

**Video mixing**
- A/B video mixing by cuts and fades
- Independent clean feed and auxiliary outputs
- Single or dual channel 2D DVE options for squeeze-and-reveal and picture-in-picture effects
- C and D inputs available to feed DVE, and can also be used as extra fill and key inputs for future expansion

**Automated and manual control**
- Full automation control using widely supported Oxtel protocol (serial, Ethernet) and GPI
- Manual control by imC software GUI master control panel, Branding Panel, PresStation or Vertigo Xpanel

**Robust design**
- Flash memory for graphics storage and operating system
- Broadcast quality, real-time operating system
- Redundant hot swappable power supplies
- Mechanical bypass of program input
- Front panel diagnostics: configuration, temperature, power supplies, PLL
Dolby encoding/decoding & upmixing

Two key challenges with the playout of HD channels have traditionally been the handling of Dolby E during program mixing, and the use of 5.1 Upmixing to maintain the continuity of the audio when dealing with 5.1 and 2.0 signals. The Imagestore 750 simplifies these problems significantly, with integral Dolby E decoding/encoding and 5.1 Upmixing using Linear Acoustic technology.

![Diagram of Imagestore 750](image)

Imagestore 750 can perform Dolby E decoding and audio mixing, and then Upmix before Dolby E/AC-3 encoding.

The Imagestore 750 can be fitted with up to four Dolby E decode/encode or 5.1 Upmixing processing modules, without any limitation on the possible combinations. The audio engine produces reliable and outstanding results, as the Dolby processing relies on genuine Dolby technology, while the Upmixing engine is based on the industry leading Linear Acoustic UpMAX™ technology.

Imagestore 750 can manage up to four streams of metadata, and is able to generate up to four presets (metadata banks). Moreover, its delay capabilities allow the video/audio/metadata to remain synchronous, and the audio can be switched seamlessly, regardless of the audio type (PCM 5.1 to PCM stereo, Dolby to PCM stereo etc).

This high level of integration of Dolby E decoding/encoding, Upmixing and metadata processing makes the Imagestore 750 the ultimate solution for audio management in playout.
Integral dynamic metadata processing

Imagestore 750 is equipped with an advanced metadata processor, including support of embedded metadata (as per RP-2020), metadata switching, and metadata generation:

Dolby E input, PCM output + metadata

PCM pass-through, metadata pass through

Metadata switching (AB mix)

Metadata carriage, either embedded in VANC or as serial data

Metadata generation to ensure full, valid data when metadata missing, or to over-ride incoming data
Powerful, Single/Dual Channel DVEs
The integral dual or single channel HD/SD DVEs are ideal for branding and promotional transitions:
• High quality picture-in-picture and squeeze-and-reveal type DVE transitions
• 10-bit processing, advanced interpolation and sub-pixel motion and scaling
• Automated or manual control of DVEs

Animation, Storage and Playout
A wide range of multilayer animation playout effects can be performed:
• Four independent keying layers with preview output enable the playout of high impact, multilevel channel branding
• Integral still/animation store with capacity for more than 4,000 HD/SD images

Automated Character Generation
Imagestore 750 is ideal for highly automated, template-based character generation for channel branding and automated promos:
• Each of the four keying layers can insert a crawl layer or static (dynamically updated) text layer
• High quality characters are output with 256 level anti-aliasing, with easy drop shadow and transparency control
• Unicode characters in TrueType fonts, from 6 to 600 pixels, in any RGB color

Emergency Alert System Support
Broadcast quality EAS emergency text and audio messages can be inserted automatically using the EAS option:
• EAS operates with an external EAS receiver
• EAS messages are triggered by a GPI and the text is sent via RS-232
• EAS audio requires an A-to-D converter to provide AES input to the Imagestore 750

Flexible Multichannel, Manual Control Options
iMC fully featured, master control switching panel system for live and specialty channels
• Branding Panel provides highly graphical, touchscreen control, with multiple “hard” knobs and switches
• iMC Software GUI master control panel with control via mouse or touchscreen interface (requires PC and display capable of supporting 1280x1024 resolution)
• Vertigo Xpanel GUI offers highly adaptable and intuitive control of multiple channels with channel ganging and full tallies

Optional Graphics Co-processor
• Imagestore 750 can be integrated with Intuition XG graphics co-processor
• Intuition XG offers a powerful HD/SD character generator, ideal for dynamic, data-driven graphics
Optional Advanced Audio Features Include Dolby Encoding/Decoding and 5.1 Upmixing

Ordering:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>IS-750</td>
<td>Imagestore 750 channel branding processor (dual input, 2X fill and key, AB mix, PGM, PVW + clean out)</td>
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<tr>
<td>Options</td>
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<tr>
<td>IS-750-DVE</td>
<td>Single channel DVE</td>
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<td>IS-750-DVE-DUAL</td>
<td>Dual channel DVE</td>
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<td>IS-750-Audio6</td>
<td>Audio: 6 channels (1 group embedded, 6 AES IN, 6 AES OUT)</td>
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<tr>
<td>IS-750-Audio16</td>
<td>Audio: 16 channels (4 groups embedded, 16 AES IN, 16 AES OUT)</td>
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<tr>
<td>IS-750-EAS</td>
<td>EAS with one AES IN</td>
</tr>
<tr>
<td>IS-750-DOLBY</td>
<td>Dolby decode/encode bundles (various configurations available)</td>
</tr>
<tr>
<td>IS-750-UMX</td>
<td>Audio upmix option</td>
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</tbody>
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IS-44-TBA 44-pin terminal block adapter for GPIO/LTC/metadata connections
IS-750-EPI16 Easyplay 16 channels audio storage/playout
IS-750-ET Easytext character generator
IS-750-Clock Buglock in-vision clock
IS-750-MEM-2GB 2 GB of animation playout memory
IS-750-HDD Internal media storage hard disk drive kit
IS-750-PSU Redundant (spare) PSU unit for IS-750
RCP-BR Branding Panel
XPanel SW control panel
IMC-Panel-GUI Software GUI master control panel

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