Harrison

Broadcast

TRION™

On-Air **Broadcast** Mixing Solution

true audio mixing processing throughout

MirroredComputer Ne

Trion™

Broadcast

The Trion™ on-air broadcast console is the latest digital console design from Harrison. Using Harrison's leading edge IKIS control technology, Trion provides an efficient, cost effective, control solution for any high-end TV or production digital mixing application with or without dynamic automation.

Trion™ Enhanced Broadcast Features:

- Exclusive end-to-end, Wide Pipe™ architecture delivers no compromise sonic purity for any and all production needs.
- New surface architecture eliminates the need for a centrally located shared-control panel. Channel controls and assignments are always instantly accessible as vertically oriented strips or as a "fold-out" across 8 faders for a true knob-per-function adjustment, regardless of the operator's location at the console or at a remote panel.
- USB architecture minimizes the console profile, weight, and power requirements making dropthrough panels possible.
- Available DSP includes the digital.engine™ for massive mixing systems or Harrison's new X-Range native engine for smaller applications.

I/O Resource Sharing

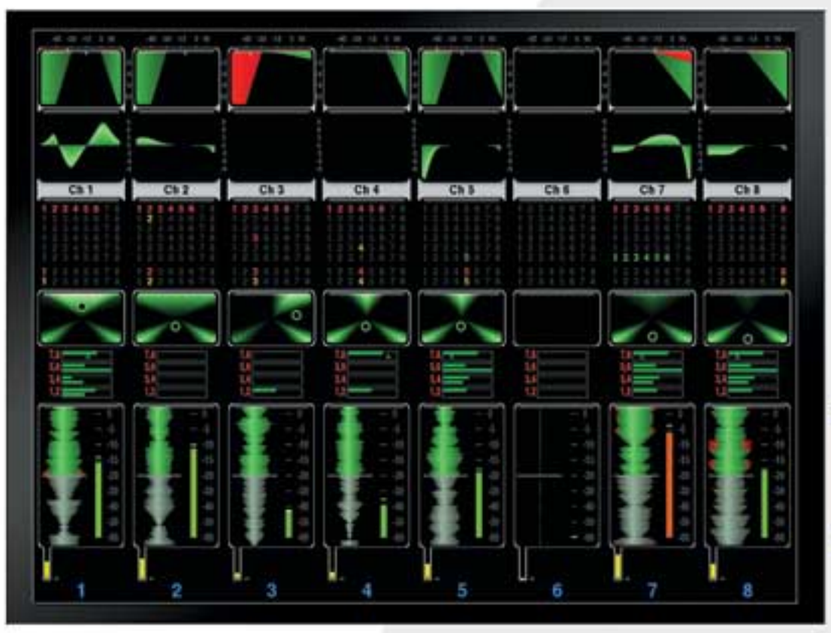
One of the Trion's many advancements is its ability to share resources. Resource sharing is assured when networking more than one console, via fiber, to a Harrison digital.engine™. Sharing guarantees each console has combined resources consisting of system I/O and digital 40-bit channels.

Profile Control

Trion provides an unmatched channel to fader mapping function called "Profiles". Trion's unique Profile feature allows an unlimited number of ways to map channel strip controls to digital channels. Profiles can be used to instantly bring any combination of channels to the operator's fingertips. Creating and accessing different Profiles can be done "on-the-fly" at the console surface – with just the touch of a button!

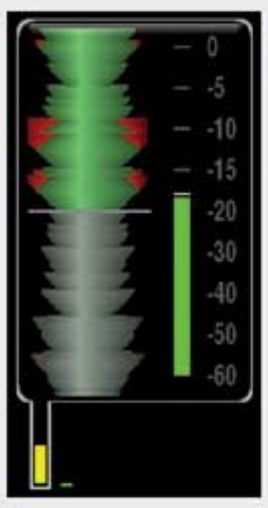
Integrated Wideview, High-Resolution TFT Displays

The Trion is equipped with integrated, high-resolution, TFT screens. Above each 8-faders is a dedicated wideview TFT screen with a graphical representation of dynamics, EQ, input channel source, bus routing, panning, aux sends, input meter, and the PreView™ waveform display – **SIMULTANEOUSLY!**



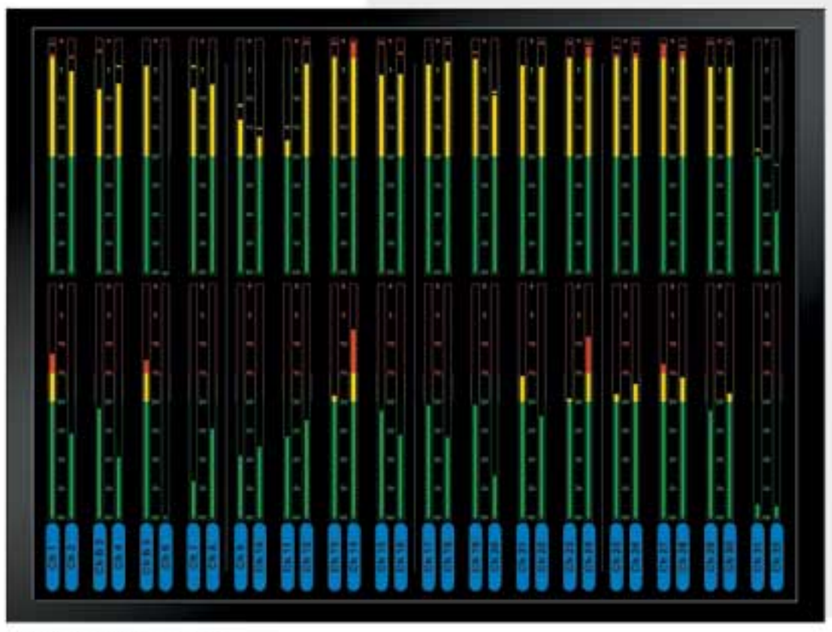
Channels Screen with PreView Waveform Meter

PreView™ Waveform Display with History *(patent pending)*



HOW CAN IT SEE THE AUDIO BEFORE YOU HEAR IT? THAT'S WHY IT'S A HARRISON EXCLUSIVE! The Harrison PreView display, located above every channel strip, offers a 20 second long waveform view of ANY AUDIO SOURCE. The waveform, which "follows" each audio channel, is generated as the audio passes through the channel and is accompanied by a standard VU + peak meter. A horizontal line marks the "live" point. The waveform above the line represents a history of the signal level in the channel, while the waveform below the line represents a preview of audio yet to be played (in the case of a prerecorded audio source). The "live" point can be adjusted in real-time to show 20 seconds of preview, 20 seconds of history, or any value in between.

In addition to monitoring the signal level of the channel, the waveform also serves to graphically guide the user in setting compression levels. If the channel compressor is engaged, any gain reduction is shown (in red) on the edges of the waveform, allowing the user to see how much gain reduction was applied to the audio signal. Showing the amount of gain reduction plus the resultant signal level for the last twenty seconds is another exclusive feature from Harrison!



Meters Screen

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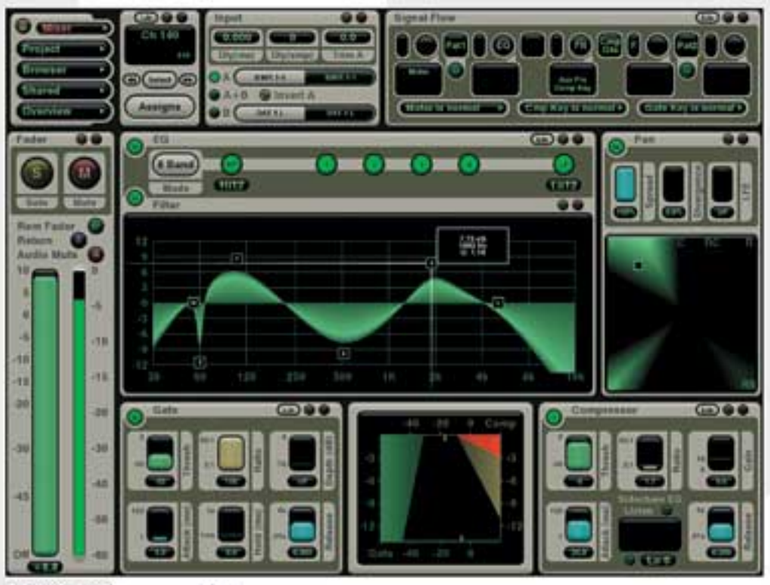
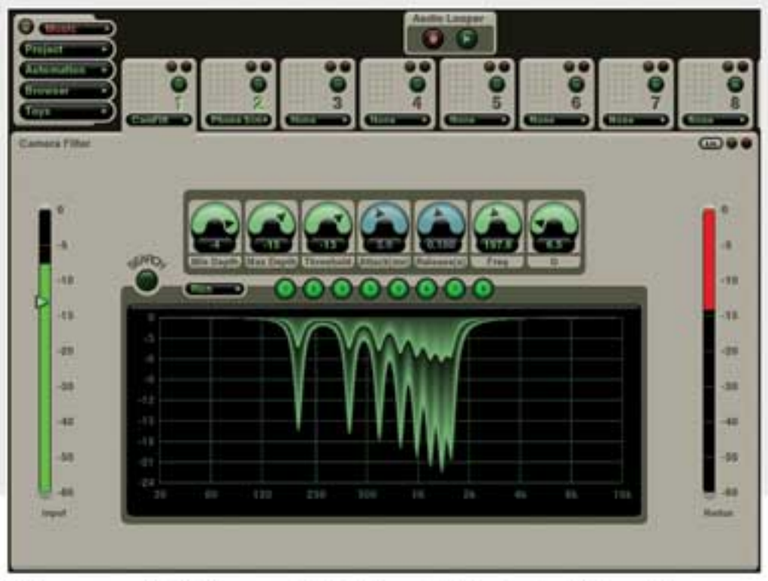
uting™ PreView™ Screens
tworking resource sharing

Trion and the IKIS™ Control Platform

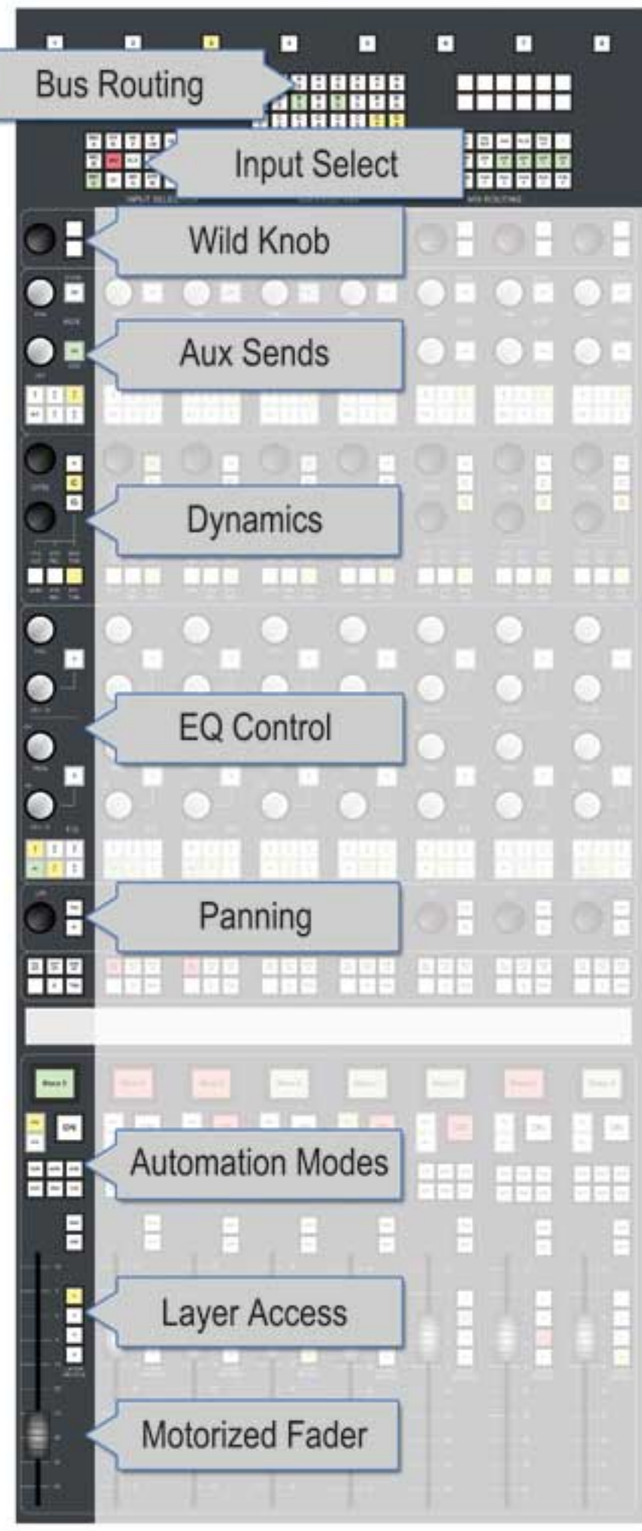
IKIS is a dedicated, dual processor, custom configured, PC-based control and automation platform for controlling Harrison consoles and other devices. Graphically rich screens guide the operator's every command. With IKIS, the Trion takes advantage of the many developments gained in building world renowned post production consoles and applies that technology to on-air broadcast consoles.



IKIS Channel Screen



Harmonic/Discreet 8-Band Notch Filter Screen

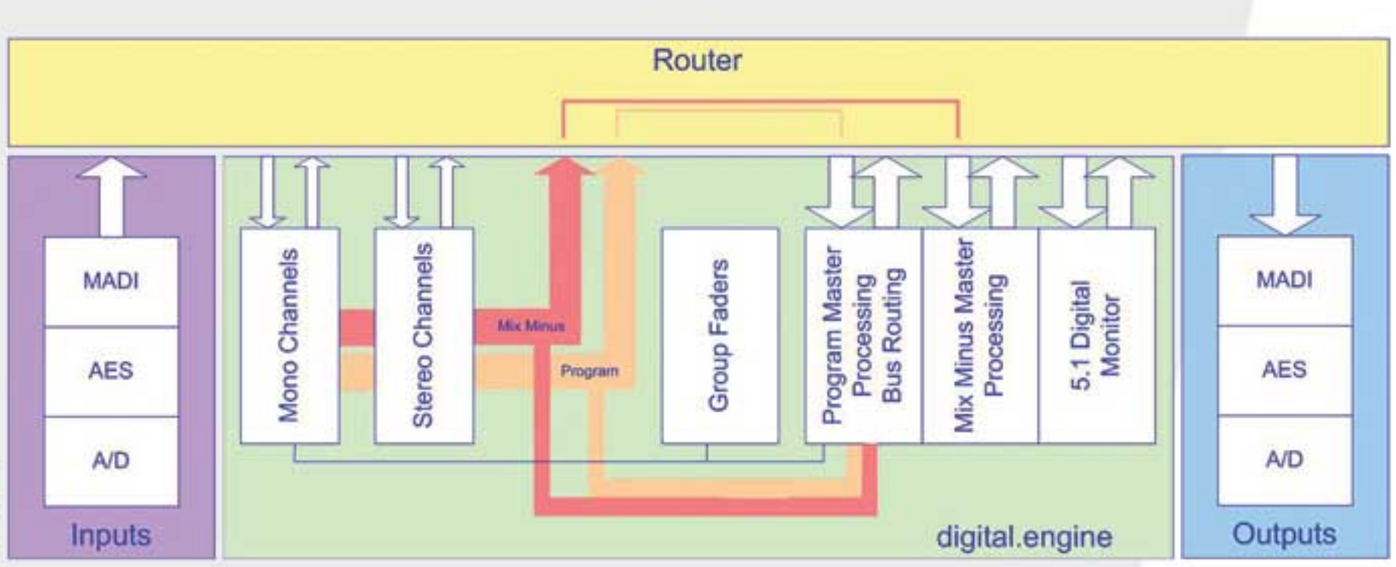


Digital Tools (optional)

Adding Harrison's exclusive Digital Tools package provides unique and powerful features. Thirty-two specialized digital bus limiters with "look ahead" and a 20 second loop recorder are included in the base package. The Digital Tools package is the gateway for a whole suite of Harrison plug-in software modules. Plug-ins are chainable and interchangeable in the signal path with fully resourced, floating point, Wide Pipe™ processing available for all bus limiters and plug-ins "at all times". **Plug-ins currently include:** Harmonic/Discreet 8-Band Notch Filter (Camera Noise Filter), Sub Harmonic Synthesizer, Crossover EQ, Leveled EQ, Multi-Band Compressor, Multi-Band Expander/Denoiser, Telephone Filter, Linear Phase EQ, DeEsser, Trainable DeNoise, Dialog Massager, Stadium Simulator, and Insert Point.

MirroredComputing™ Technology and Signal Processing

Harrison offers IKIS MirroredComputing technology for those individuals seeking a redundant system. A second, identical (mirror) computer duplicates all functions. The mirror computer assures uninterrupted audio without reboot.



Resource Sharing

With the addition of a single, portable, 8-fader panel and screen, a remote operator can control the live mix on stage or anywhere in the venue for complete console access.

IKISdirect™ DAW Controller Option

IKISdirect™ allows the Trion to control Digital Audio Workstations as multiple DAWs as well as control of the Harrison DSP – concurrently. Harrison's unique Profile feature allows "on-the-fly" configuration intermixing DAW control strips among regular console channels. Consoles fitted with Harrison's new PreView™ Waveform displays will present in-line waveforms of DAW tracks... *IN THE CONSOLE METER BRIDGE!*

X-Range™ DSP

Configuration Options: From 32 to 192 channels with multiple X-Range™ DSPs. Plug & Play expandable.

Number of Busses: 88 busses (upgradeable on site)

Processor Precision: Optional 64-bit, true floating point precision with 64-bit architectural interconnects assures greatest precision. 32-bit standard.

Channel Features: Dual inputs w/ trim, separate Hi and Lo pass filters adjustable from 12dB to 24dB per octave, floating insert point, PFL, AFL, 4-band and 8-band EQ with notch/bell/shelf curves per band, limiter, compressor, gate, expander, de-essor, delay, main fader, 16 or 32 Aux. sends, 24 or 48 bus assignments.

Signal Flow: Signal flow can be changed for each individual input or output channel.

Sample Rate: Variable, follows all pull up and pull down rates at 44.1k, 48k, 88.2k, and 96k.

Router Configuration: Sized for each system with a maximum up to 1024 inputs x 1024 outputs

Input/Output Method: MADI (AES10), Gig Ethernet

I/O Connection: Fiber

I/O (Standard): Flexible format, A/D, D/A, AES, TDIF, ADAT. *Premium I/O is not available with the X-Range DSP unless quoted otherwise.*

Router Signal Connections: BNC MADI, BNC Optical MADI, Cat5 Ethernet.

Router Partitioning: Router partitioning is available to segregate facility tasks when external control is desired

Control Platform: Dual processor, PC-based IKIS computer. MirroredComputing™ option.

on-air broadcast Console

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digital.engine™ DSP

Configuration Options: From 32 to an unlimited amount of channels with multiple digital.engines™. Plug & Play expandable.

Number of Busses: Choose either 88 or 176 total busses (upgradeable on site)

Processor Precision: True 40-bit, floating point precision with 40-bit architectural interconnects assures greatest precision.

Channel Features: Dual inputs w/ trim, separate Hi and Lo pass filters adjustable from 12dB to 24dB per octave, floating insert point, PFL, AFL, 4-band and 8-band EQ with notch/bell/shelf curves per band, limiter, compressor, gate, expander, de-essor, delay, main fader, 16 or 32 Aux. sends, 24 or 48 or 96 bus assignments, configuration dependant.

Signal Flow: Signal flow can be changed for each individual input or output channel.

Sample Rate: Variable, follows all pull up and pull down rates at 44.1k and 48k.

Router Configuration: Sized for each system with a maximum up to 2240 inputs x 2240 outputs.

Input/Output Method: MADI (AES10)

I/O Connection: Copper BNC

I/O (Premium): High density, high headroom I/O. A/D, D/A, AES In and AES Out with optional SRC on AES Inputs and AES Outputs. *Standard I/O is not available with the digital.engine unless quoted otherwise.*

Router Signal Connections: BNC MADI, BNC Optical MADI

Router Partitioning: Router partitioning is available to segregate facility tasks when external control is desired

Control Platform: Dual processor, PC-based IKIS computer. MirroredComputing™ option.