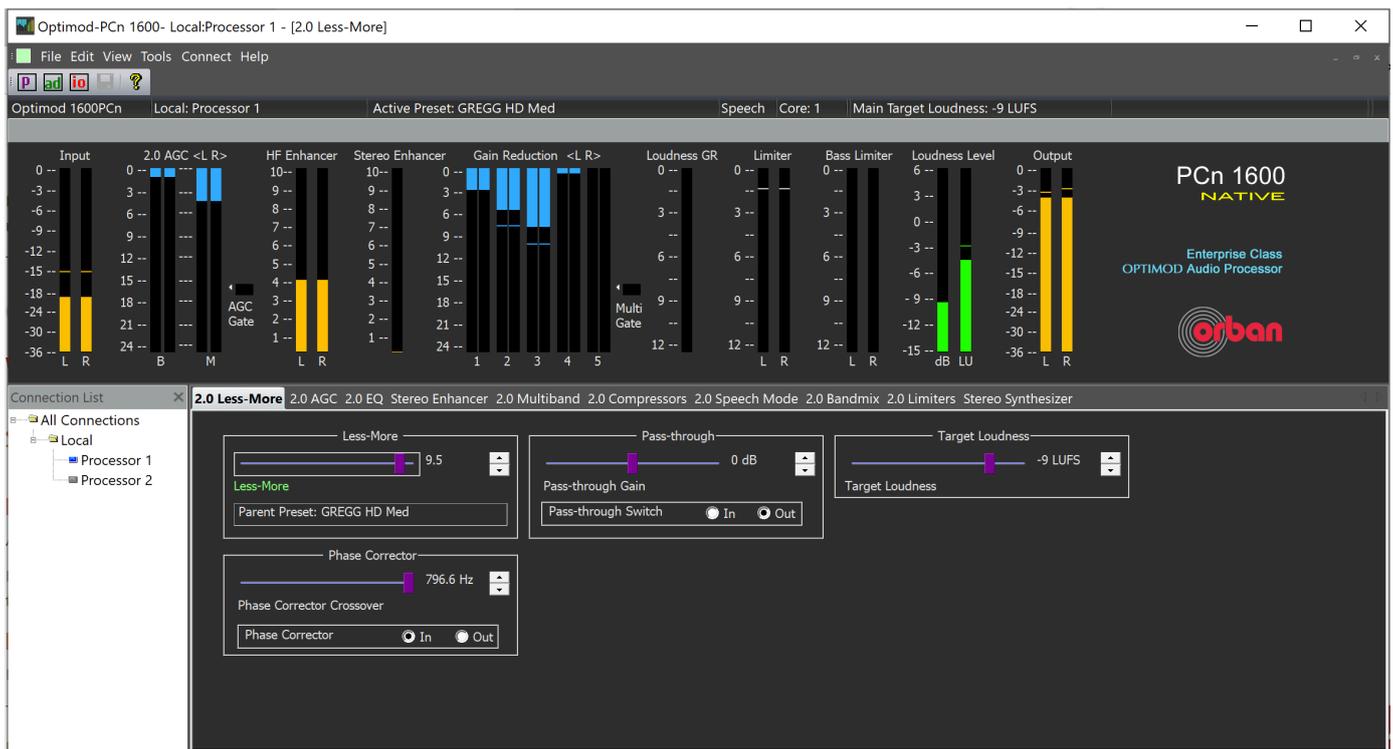




OPTIMOD-PCn1600

Audio Processing Software for DAB+, Streaming & Podcast

The OPTIMOD-PCn 1600 Audio Processing Software is the perfect choice for customers who need a flexible and scalable audio processing solution. Whether it is audio processing for live streaming, DAB/DAB+, HD radio or TV broadcasts, OPTIMOD-PCn 1600 will do the job. With its integrated batch processor OPTIMOD-PCn 1600 is also the ideal solution for Podcasters who want to give their work the sound it deserves. OPTIMOD-PCn 1600 runs as a Windows Service on its host computer, can be configured to start automatically with Windows and runs reliably in the background.



Key Features

Flexible Number of Audio Processors: You will need to purchase one OPTIMOD-PCn1600 license for each instance of audio processing required. The main factors determining how much CPU a given instance will use are the number of channels of processing (dual-mono or stereo), whether the MX Peak Limiter is activated, and whether the Loudness Controllers are enabled.

Audio processing tailored to your needs: OPTIMOD-PCn1600 comes with Orban's exclusive MX peak limiter which decreases distortion, increases transient impact, and provides more high frequency energy. The multipath mitigator/phase corrector prevents high frequency loss during mono listening, including weak-signal blending in car radios. The subharmonic synthesizer generates punchy bass. Each OPTIMOD-PCn 1600 audio processor consists of the following adjustable processing



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elements: Input > DC-blocking High-Pass Filter > Stereo Synthesizer > Mono Bass > Left/Right Phase Skew Corrector > Stereo Enhancer > Two-Band AGC with Window Gating > High-Pass Filter (20-200Hz) > Lowpass Filter (10.. 20 kHz) > Subharmonic Synthesizer > Equalizer/HF Enhancer > Five-Band Downward Expander > Five-Band Compressor/Limiter > CBS and BS.1770 Automatic Loudness Controller > Bass-Clip / Pre-Limiter > True Peak Limiter > Output.

Factory Presets: A variety of factory presets are available; Orban's exclusive "Less-More" control simplifies creating your own signature sound.

Loudness Control: OPTIMOD-PCn1600 provides modern "target loudness" concepts including those specified in EBU R128 and ATSC A/85 using the ITU-R BS.1770 loudness model. It allows you to easily set and verify the target loudness of the output. You can also use the proprietary Orban-CBS Labs Loudness Meter and Loudness Controller that provides BS.1770 compliance better than a BS.1770-based loudness control and it does so without audible gain pumping or other annoying artifacts common in BS.1770-based loudness controls.

True Peak Control: The MX True Peak Limiter creates a favourable tradeoff between loudness, transient punch, and distortion artifacts.

PreCode™ Technology: Orban's exclusive PreCode™ technology manipulates several aspects of the audio to minimize artifacts caused by low bitrate codecs, ensuring consistent loudness and texture from one source to the next. PreCode includes special audio band detection algorithms that are energy and spectrum aware.

Batch Processor for Podcast Applications: OPTIMOD-PCn1600 can also process .wav files for e.g. podcasting. The processing speed is usually faster than real time and depends on

the CPU speed and architecture. Single files or directories can be processed, using local or external storage. Any metadata present in the source file is preserved and passed to the destination file.

Audio Interfaces: The software is compatible with all Windows sound devices with stable Windows WASAPI Drivers. Real, virtual, and network audio devices are supported for maximum flexibility, scalability, and inter-app audio connections without real hardware.

Audio-over-IP: By use of third party Windows Audio drivers, PCn1600 is compatible with various network audio input/output (such as AES67, Ravenna, Dante or Livewire).

Control Software: The 1600PC Windows Control Software can run on the same computer as the OPTIMOD-PCn Service or on any computer connected to the same network. You to install as many copies of 1600PC on as many computers as you wish. Only one instance of 1600PC can be connected to a given audio processor at a time.

Network Management: The SNMP features allow you to monitor the PCn1600 status and to send alarm notifications to your network via the ethernet connection. IP API and serial API features provides complete remote administration over TCP/IP and serial port communication.

Hardware Requirements: OPTIMOD-PCn requires a genuine Intel Core 2 (3 GHz or faster using Intel's 45 nm manufacturing process), i3, i5, or i7, CPU of any generation. OPTIMOD-PCn uses Intel vector floating point instructions to achieve the required computational efficiency. The baseline OPTIMOD-PCn code requires the SSE4.1 vector instruction set. Core 2 and all i-series processors support SSE4.1. You may also use an Intel Xeon processor if it supports SSE4.1. We recommend sixth-generation i7 CPUs or higher.

Operating System: Windows 10, Professional edition or higher.

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