



Organtechnology™

Virtual Pipe Organ Systems

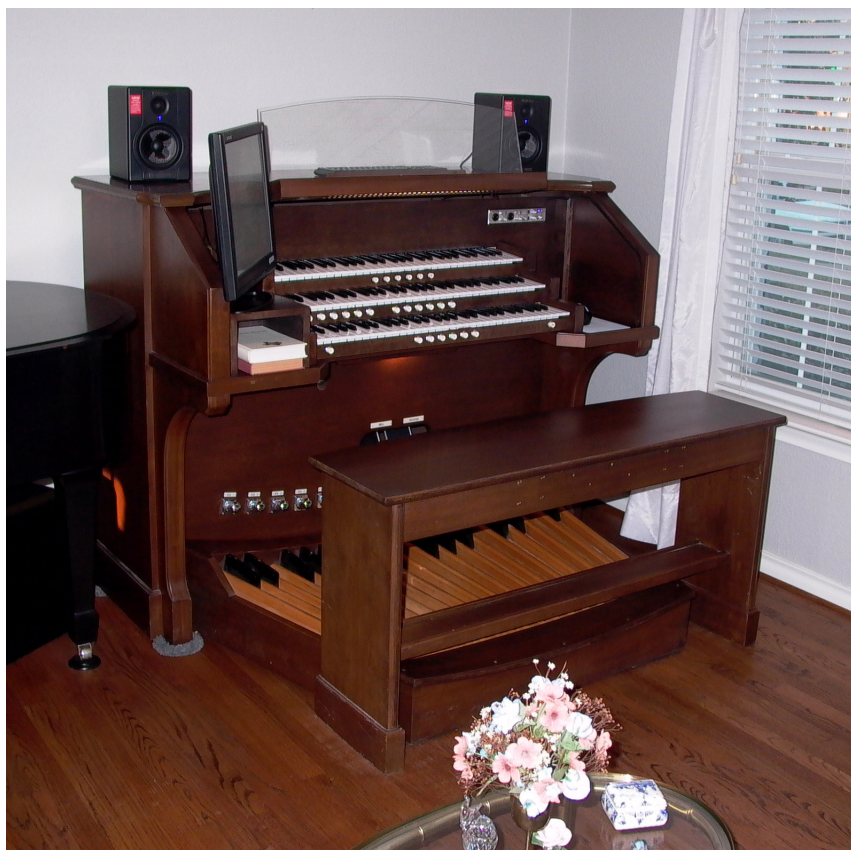
Organtechnology Virtual Pipe Organs

Here we show examples of what we have done and what we can do. Whether it is a complete Hauptwerk based virtual pipe organ, the conversion of a name brand organ to a Hauptwerk VPO, a sound engine for an existing organ or, a new console for your claviers, Organtechnology™ can meet your need.



Example 1. A professional organist's practice instrument.

Designed for a professional organist's practice organ, this Organtechnology™ instrument is an all wood console in Cherry finish containing Classic Midi Works keyboards and pedal board with three expression pedals and seven toe-studs. The console is hand crafted for three keyboards but it can hold as many as four manuals plus pedalboard. The computer compartment provides access to the front of the computer for ease of license key insertion and DVD operations.



Example 2. An Organtechnology VPO in a repurposed console.

This Organtechnology VPO is housed in an Allen Organ 303B solid wood console. This example removed all of the analog components and reused all of the Allen foot pedals, thumb pistons, toe studs and the Allen metal shoes for the expression pedals.

The Organtechnology Sound Engine powered by Hauptwerk™ resides inside the organ. It uses two of the eight channels of audio for the organ pipe sounds and two channels of headphone audio with all channels mixed to headphones. The current complement of speakers are two M-Audio BX-5a and an SPX-10 sub-woofer.

The main sample set is the 50 rank Evensong First Baptist Riverside Schantz. Additional sample sets include the 30 rank Anglican Parish organ of St. Anne's Birmingham and the Paramount 3/10 theatre organ.



Example 3. Creating your own personal practice organ.

We begin with a solid wood console designed for Organtechnology by Wolf Blauen of Texas Timber Wolf and then select the organs(s) you want to play from the hundreds of available sample sets. The requirements of the largest sample set will determine the sound engine computer needed for your system.

Then, within the constraints of two touchscreens, four manuals, sixteen toe studs and 64 thumb pistons, select the manuals in number and style. Additionally specify the thumb pistons by quantity and division and additionally the toe studs. Finally we need to know the environment in which it will be played. We will then create a VPO design tailored to fit your needs for a home or practice organ.

In all of our VPO designs, the Organtechnology Sound Engine powered by Hauptwerk™ provides the pipe organ sound for Baroque, Romantic, English, American and Theatre sample sets. The sound system can utilize 2 to 48 channels of audio for the organ pipe sounds and of course headphone audio is included. The organ can have up to 24 stereo pairs and multiple subwoofers but begins with a single stereo pair and a sub-woofer.

Q. Can I simply turn on the instrument like a pipe organ and just play?

A. Yes you can. An Organtechnology™ VPO can be configured to provide complete control from only the controls of the console, from the touch screens or both. It is possible control all of the stops, thumb pistons, registrations and turn on/turn off functions just as a pipe organ would do. It can even be configured as a ‘headless’ organ where the computer system is invisible and the console utilizes standard pistons or drawknobs rather than a touchscreen interface.

Q. How much do I save converting my analog organ to Hauptwerk™ ?

A. Generally some savings can be had by doing this but conversion labor and freight costs can consume much of the difference. It also is dependent on which organ you want to convert, as well as what instrument you want to have when finished. Please contact us to discuss your particular requirements.

Q. Where do you get the parts to build the organ?

A. Because Organtechnology™ is ‘vendor independent’ we can provide the best product/technology for your instrument and budget. There is great flexibility in selecting features and functions to be incorporated into an Organtechnology™ VPO. The result is a “Best in Class” organ which will serve you well for many years to come.

Q. How long will my VPO last before it needs replacement?

A. An Organtechnology VPO should last a very long time. Since it is a self contained system, it should last as long as computer parts are made. Although the sound engine computer is a very powerful one, the future will certainly continue to bring more power at lower prices. This means that in the event of a catastrophic failure, the entire computer could be replaced with a more powerful machine at a very reasonable price.

Q. What do I do about warranty service?

A. For warranty service on a new VPO, our technicians can do a great deal via LogMeIn although if hardware repairs are needed, a return of the defective unit (keyboard, encoder or sound engine) may be necessary. All of the parts used are available on the open market. The computer can be updated, if desired, but once it is installed and working no further contact with the internet is necessary, except for when remote service calls by Organtechnology™ are needed.

Q. What is a Virtual Pipe Organ anyway ?

A. A Virtual Pipe Organ is an electronic device where the sounds of each pipe in the real pipe organ are captured in a digital recording and assembled into a large data file which is then used by the Hauptwerk™ software to re-create the sound field of the pipe organ as the organist plays the MIDI equipped console. This means Hauptwerk™ is a recorded organ system rather than a synthesized (digital or analog) organ. This technology allows a realism of sound reproduction that was heretofore not obtainable.

Q. Isn't a VPO just another 'Digital Organ'?

A. The difference between a pipe organ, an analog organ, a digital organ and the virtual pipe organ is in the technology used to produce the sound. The main difference is in the sound itself, with the VPO being second only to the pipe organ.

- The pipe organ uses wind-blown pipes of various types and lengths to make the sounds. It produces the sound to which all others aspire.
- An analog organ seeks to synthesize sounds similar to pipes by using analog circuitry for shaping and filtering until the sound is sort of like a pipe sound but not quite.
- The Digital organ uses digital techniques to synthesize pipe sounds in a method called 'sampling'. In this case, a few notes of a rank are captured digitally and used to synthesize the rest.
- Hauptwerk™ based Virtual Pipe Organ uses a technique of digitally recording the sound of each and every note in each rank of the pipe organ and compiling a 'Sample Set' for that pipe organ, such when played back, it sounds like the organ from which the samples were recorded.

Q. What kind of sample sets are available ?

A. Two basic types of sample sets are available: "Wet Samples" which include the room acoustics and "Dry" samples which exclude room acoustics. Both types of samples are processed equally well by the Organtechnology Sound Engine but Dry sample sets depend on the natural reverberation acoustics of the room or the use of additional software to achieve the effects.

Q. Once my Organtechnology VPO is installed, can I change it ?

A. Within certain limits, you may change many things on your VPO. The easiest to change is the organ sample set. These can be changed so easily that many people have several loaded on their VPO. The next most popular upgrade is multiple touch screens. More keyboards may be added to the stack (up to four) on an Organtechnology console and up to 16 thumb pistons per manual plus a total of 16 toe studs can be accommodated.

Q. How do I switch from a concert organ to a teaching organ ?

A. This would be done by loading an alternative version of Hauptwerk™ which has been set up as the teaching organ. It may be configured to provide only as many ranks as the teacher requires. Switching from one to the other requires only a few moments. Please contact us for more details.

Q. Can an Organtechnology VPO fit through my music room door ?

A. YES! The Organtechnology™ AGO console shown in these pictures is a modular unit that will easily fit through even a 24” interior door. Once in the room it requires only a cross point screw driver to assemble everything. Once assembled, the entire VPO fits inside a rectangle 66” wide by 60” deep.

Q. Do you provide virtual theatre pipe organs also?

A. Yes we can easily provide VTPO sounds from any MIDI console and we can also provide VTPO capability for any Hauptwerk console we might construct. A full Wurlitzer style horseshoe console is available upon special arrangement. Please contact us for details and a quotation.

Q. What is a Sound Engine ?

A. The Organtechnology Sound Engine is a customized Intel i5/i7 or Xeon PC which receives the MIDI information from keyboards, pedal board, and controls and provides the processing power for Hauptwerk™ to recreate the sounds of a Cavaille-Coll, Schnitger, or Skinner. The Sound Engine also provides the organ pipe sounds to the external audio system in order to recreate the original organ sounds.

VPO Organtechnology, LLC

VPO Organtechnology, LLC is a technology integrator specializing in Hauptwerk™ based Virtual Pipe Organs (VPO) for organists for their pleasure and practice. We take carefully selected hardware from around the world and assemble it into an instrument that is unique to your needs. This hardware includes an Organtechnology Sound Engine which provides all the needed computer and sound generation support for Hauptwerk™, the world's most advanced Virtual Pipe Organ.

Organtechnology offer a variety of products and services for the VPO.

- Complete Virtual Pipe Organ Systems with hand crafted consoles.
- Organtechnology Sound Engines for those who already have MIDI.
- Accessory items such as touchscreen monitors, toe studs with wiring, encoders and thumb piston rails for various brands.
- Consulting and DIY assistance services via remote desktop software.

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