

Minor I American Classic Organ

- American Classic Organ
- 2 manuals + pedal
- Pedal, Swell and Great divisions
- Wet and Dry versions
- 30 Stops + Chimes



A virtual Instrument for the Hauptwerk Virtual Pipe Organ

Minor I – American Classic Organ
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The American organ tradition

Symphonic and Romantic

Organs: – 1930

The Symphonic Organs in the US were built in response to an increased interest in and availability of orchestral transcriptions for the organ. As the name implies, the organs included ranks and voices that imitated the many sounds available in a symphonic orchestra. This included strong tonal and color contrast, few mutations and mixtures, enclosing of all divisions and the possibility of more extreme volume variations.

Ernest M. Skinner & Company

Ernest M. Skinner was one of the most successful American organ builders of the early 20th century. His desire to bring the organ under the complete and easy control of the organist was coupled with his lifelong interest and obsession with “orchestral” tonal colors and their application to the pipe organ. During the first decade of their existence, Ernest M. Skinner & Company developed a national reputation, building large organs for some of the most prestigious churches, concert halls, colleges, and auditoriums in the country. The company implemented a streamlined building methodology, and several new inventions were brought to life within the company. This included huge and highly sophisticated fore-runners of modern computers that were built of wood, leather, and metal organ parts,

and used low-voltage DC Current and low pressure pressurized air (“wind”) to control and direct the thousands of switching and control commands which are constantly sent to all parts of the instrument when being played. A large Skinner organ and its Action system would contain tens of thousands of precision moving parts and mechanisms, many miles of wiring, and represented the pinnacle of craftsmanship, engineering, and ingenuity for their era.

The American Classic Organ 1930-1970

The arrival of **George Donald Harrison** at Skinner and the later merger into the **Aeolian-Skinner** Company in the early 1930’s was followed by a change in organ philosophy. While the bulk of Harrison’s work was as a tonal designer and voicer, Harrison is most famous for his association with the “**American Classic**” organ design. This design concept was partly a reaction to the proliferation of romantic-orchestral “symphonic” organs that had been in fashion to that point. The symphonic organ sought to emulate the effects of a symphony orchestra with imitative solo reeds, colorful flutes and warm string-toned stops. The American Classic organ, on the other hand, sought a return to design principles of the 18th century, particularly the development of clean diapason choruses topped by several brilliant mixtures.

The organs also contained stops and expressive divisions evocative of the romantic organ writing of the 19th and early 20th-century French school. The voicing of these instruments, in particular, allowed for a clear interpretation of fugal passages and chorale writing where each inner voice could be heard and articulated clearly. Harrison, along with other builders such as Walter Holtkamp, conceived the American Classic organ as a single instrument that could effectively and convincingly play music of all styles and eras with equal facility. In many, if not most of his instruments, he is considered to have achieved this goal, adapting his instruments effectively to the particular acoustic qualities of American concert halls and churches. This then meant a change into more versatile instruments, which were built on some of the 18th century principles, but still retained much of the beauty of the romantic organ, which was more symphonic in nature. The American Classic Organ brought Mutations and Mixtures back and properly voiced, clarity and transparency of tone again became important, and same for the achieved versatility from combining the tonal characteristics of the 18th century with modern instruments.

Sources: internet articles, including:

http://en.wikipedia.org/wiki/Ernest_M._Skinner

http://en.wikipedia.org/wiki/G._Donald_Harrison

The Hydra Sound Group

The Minor/Major I Organs are the first in a series from the Hydra Sound Group, a cooperation of Pipe Organ recording companies and individuals from all over the world. Etcetera Consulting is the coordinating and publishing partner for the Group. The group represents many of the most skillfull contributors to the Virtual Pipe Organ community, with expertise in recording, playing, noise reduction, voicing, UI design and programming. Members of the group have contributed to more than 20 of the organs currently available, and are involved in several organs soon to be released, some at Etcetera Pipe Organs, but also as consultants and suppliers to other Virtual Pipe Organ publishers. You can visit us at

<http://organ.etcetera.cc>

Minor I Organs - Background and Details

Organs and pipes recordings

Over the last 8 years we as a group have been acquiring recordings from several different organs built in the peak of the ACO period from organ builders that have been influenced by the same philosophy and with similar tonal characteristics.

Most of our Master recordings were done at 96kHz/24 bit to have enough latitude for later processing. A few were done at 48kHz/24 bit. The recordings were done using precision electret condenser microphones with an omni-directional polar pattern. The samples are later processed with Noise Reduction software, and a lot of other utilities to make them behave and appear good. Great care has been taken to keep the

”soul” of the individual pipes and ranks.

Some of our organs were recorded in their complete state, while on others we have recorded some ranks that we found to be of special interest for the projects. We have been recording **Dry**, meaning that the local acoustics and reverb has not had much influence on our recordings. Compared to what some seem to advocate, we do not believe that the pipes themselves know what context they live within, so a pipe by itself without its local acoustics, surrounding pipes and voicing is not baroque or romantic, it is just a pipe. Recording Dry separates the individual pipes from their local acoustical environment and surroundings, and thus makes it possible to blend them with pipes re-

Background and Details, contd.

corded at different locations. We have concluded that recording Dry gives the best results when recorded just outside their enclosures, so ours are not extremely Dry or artificially dried out to be all flat, and often includes a little of their enclosure acoustics, meaning that they do have small natural reverb tails of ~500 ms. length. We find this to give the best results if they are later placed in an acoustically rich environment, or for adding artificial reverb to reproduce a given acoustical environment and placement. We also find that this makes the Minor I Dry organ perfectly fit for training purposes, since your playing details are not hidden in a huge reverb, and as such can more easily be heard and corrected if need be.

Building a ‘new’ organ from old — bringing the past to the present.

The Minor I seems to be among the first Hauptwerk organs of this scope that uses select Dry samples from several organs, aligns their Dry reverb and then voices, scales and intonates their tonality to fit well together, and then for the Wet version applies a complete and homogenous Wet reverb including multiple releases. In this project we have done something that has been possible for a long time, but has been missing among the available Hauptwerk sample sets. While we applaud and also contribute to the availability of historical documents of given organs in their complete and current state, we think the Hauptwerk model currently by far is the best available way to model any organ, and the opportunity to build new organs should be equally attempted. Some would say that’s what several other manufacturers have been trying to do with variable success and quality for years. The big difference being that we have done this on the very best software available. So – while our model has been a 1950-ish American Classic Organ, we have used the best technology available in the 21st Century to perform our task. Compared to some of the others having built their organs this way, we have not gone to extremes regarding adjustments and replacement of individual pipes that sounded a bit differently than their neighbors. For us, this individuality is an important part of the “life” and “soul” of any pipe organ, and overdoing the removal of such

differences in the aim of a very clean organ so easily gives a synthetic feeling to an organic and very much alive instrument as the pipe organ is. Pipes that were clearly mistuned have been retuned, but again – we have not even in this area aimed for 100.0% perfection, though compared to your average physical instrument ours should appear to be tuned pretty much as if is the organ tuner had just been visiting you.

The amount of work in building a Hauptwerk organ happens mostly after the recording of the samples. For these samples we have probably done more work than a historic document of a given organ would have needed. We have built a new organ, and we have done as many organ builders have done in the past, and still do, we have selected the best ranks from different suppliers, and adjusted those to fit homogenously within the organ model we were aiming for.

The Minor I Tonal characteristics

The Minor I organs are designed to create a rich and warm sound, but were also designed with great care and attention for diversity and clarity. Individual pipes and ranks have been voiced to be musical on their own, and we have tried to follow the best design principles from American, English and European organ builders. The voicing, scaling and tonal finishing performed has followed historical traditions in the same way as the original builders of American Classic instruments did in the past and still do. Divisions have been voiced on their own to make them balanced, and then scaled and voiced to fit together with the other divisions, and as a whole. Like a physical instrument, final voicing should still be performed at the location if the Dry organ is placed in a reverberant space with its own acoustical environment, but our default balance and tonality is meant to make this task consistent and effortless using Hauptwerk’s voicing capabilities.

American Classic Organs exist in many shapes and versions, and are not an exact science, so you might still find stops that you would like to voice somewhat differently. We have set the individual amplitude levels at defaults that should be close to our organ model and intentions. As an example we know that some of you might like the Great

Principal Chorus to be even warmer and less edgy, and then lowering the Mixture amplitude or brightness is a way of achieving this. At the same time, the American Classic Organs did have strong Great Principal Choruses, so for the model that we have aimed for, their level and appearance is correct.

We have scaled and voiced the organs to have good default behavior within the American Classic Organ tradition, so if you change the relationships too much, you might end up with isolated changes that could be more to your liking, and maybe better suited for a given style repertoire, but we would be careful of overdoing this, otherwise the tonal balance of the organ model we have aimed for could be lost or displaced, generating a harmonic appearance and balance that would be too distant from the rather rich and warm sound of the American Classic Organ.

To make the Minor I organs most versatile, the Swell division is very large, maybe even larger than the Swell on a competent three-manual instrument. This allows for the most dynamic flexibility, and also allows a wider range of literature to be played, for instance repertoire that requires French reed choruses, strings, Vox Humana and the like.

Still, it is a two manual organ and some compromises have to be made when dealing with smaller instruments. Compared to the Swell, the Great is less versatile, but it does include a Flute Celeste to use as accompaniment to Swell solo stops, and a moderately voiced 8’ flute to accompany swell stops when an undulating stop isn’t wanted. A more robust positif-type Clarinet on the Great serves as the only great reed, primarily for more German character and contrast to swell solo stops. However, it is under expression in the Swell box and is also affected by the Swell tremulant. The Principal Chorus is typical of an American Classic Organ of this size.

For an organ of this size, the pedal division is well rounded, and has both Principal and Reed choruses and some softer ranks as well.

Thanks:

• The beta team, for your advice and suggestions, WillH, PanosG, AlM, and JarleF

Specifications

Organ:

- American Classic, 2 manuals + pedal
- Pedal, Swell and Great divisions
- Swell: Expression & Tremulant
- 30 stops + Chimes

Audio:

48kHz, 16bit from 96/48kHz, 24bit masters

Samples are protected, does not require USB dongle

Hauptwerk:

Version needed: 4.0

Loads with Free Edition: Yes, but some memory and polyphony limitations

Dry version:

Releases: 1

Reverb : ~500 ms.

Memory: 1.1 GB for full organ, so full Dry organ works with Hauptwerk Free Edition and its 256 polyphony limitation

Wet version:

Releases: 3

Reverb : ~2.5 sec.

Memory: 2.1 GB for full organ, 1.4 GB with single release, so full Wet organ needs Hauptwerk Basic Edition with all ranks loaded. With Single release the Wet Organ loads and works with the Hauptwerk Free Edition and its 256 polyphony limitation

Compass:

Manuals: 61 notes,

Pedal: 32 notes,

Chimes: 25 notes

Noises:

- Blower
- Key, Stop and Tremulant Action
- User selects if Noises are loaded or not

Accessories:

6 pistons to Pedal Organ

6 pistons to Great Organ

6 pistons to Swell Organ

10 General pistons to full organ

Great to Bass and Great to Swell Melody Couplers

Swell		Great		Pedal		Couplers	
Swell	Quintaton 16	Great	Principal 8	Pedal	Principal 16	Couplers	Great to Pedal 8
	Bourdon 8		Rohrflute 8		Subbas 16		Great to Pedal 4
	Viole de Gambe 8		Flute Celeste II 8		Quintaton 16		Swell to Pedal 8
	Voix Celeste 8		Octave 4		Octave 8		Swell to Pedal 4
	Principal 4		Superoctave 2		Cor de Nuit 8		Swell to Swell 16
	Flute 4		Mixture IV		Choralbass 4		Swell Unison Off
	Nazard 2 2/3		Clarinet 8		Bombarde 16		Swell to Swell 4
	WaldFlute 2	Pedal			Trompette 8		Great to Great 16
	Mixture IV				Clarion 4		Great Unison Off
	Cornet V						Great to Great 4
	Contre Trompette 16						Swell to Great 16
	Trompette 8						Swell to Great 8
	Hautbois 8						Swell to Great 4
	Vox Humana 8						
	Clarion 4						
	Chimes						
	Tremulant						
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This sample set can only be installed in Hauptwerk after accepting this agreement.

