



## K A SPENCER (SOFTWARE)

COMPUTER SUPPORT & SOFTWARE DESIGN

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### **Computers for Hauptwerk**

We are able to build PCs specifically designed for use in virtual organs systems which use Hauptwerk™ and other software. Owing to the processing required to handle organ pipe samples, PCs for this purpose require:

- either Core 2 Quad or Core series (i5 or i7) (Intel corporation)
- 64bit Windows™ Vista or Windows 7 (Microsoft)
- not less than 8 Gbyte RAM

Multiple core CPUs are able to use a wider address bus for memory than single core – typically 64bit rather than 32 bit. This massively increases the amount of directly addressable RAM that can be incorporated into the PC when used with a 64bit (x64) version of Windows.

It should be noted that, whilst single core Pentium and Celeron based PCs will run the 32bit versions of Hauptwerk under 32bit Windows, serious use with medium and large virtual organs is severely restricted, owing to the limitation of memory address space to 3-3.5 Gbyte and the single processor core. Hauptwerk software must hold the entire virtual organ in RAM, and the CPU must be able to manage to playing of hundreds, or thousands, of recorded sample sound files simultaneously, thus single core CPUs, 32bit Windows and limited RAM result in the use only of limited sample set sizes, and in limited polyphony.

The PCs outlined below are designed to be able to play the medium and larger virtual organs at 20- or 24bit data-resolution and with multiple loops and release tails to give a more realistic acoustic experience, but at a reasonably balanced and affordable price. These include:

JJ Binns organ at Haverhill Old Independent Church, Suffolk, England, Extended set

H Willis organ at Hereford Cathedral, England, Volume III

(Lavender Audio, David Butcher)

H Willis organ at Salisbury Cathedral, Wiltshire, England, Volume I

(Milan Digital Audio, Brett Milan)

Pécsi-Mühleisen organ at the Palace of Arts, Budapest, Hungary, Medium Edition

(Inspired Acoustics, Csaba Huszky) (must be loaded with some stops at 16- or 20bit)

And many others.

However, they are certainly not the highest specification PCs available. If you are intending to play much larger instruments such as the PAB Professional, Extended or Gravissimo Editions or the Bovenwerk Hinz Volume III at 24bit resolution and other very large virtual organs, you will require 32 Gbyte of RAM and you may prefer a Core i7 CPU. We do not have ready-made specifications and prices for these higher specification PCs but you may feel free to enquire if that is what you are seriously interested in.

Please note that we have not specified the precise motherboard or hard disc manufacturer or model in this document. This is because price, specification and availability varies from week to week. If the price of your PC is likely to be significantly different from that shown in the price guide, you will be informed before your order is confirmed. For reasons of support I supply to the UK only.

Please see over for two models of PC.

## **Hauptwerk PC 1**

(NB: components are subject to availability, and may differ in appearance)

Case: Cube case - approximately 10.6" (H) x 7.9" (W) x 13.2" (D)  
Optical disc access; Floppy disc access; power switch etc.;  
Typically equipped with front panel temperature indicator.  
These cases fit nicely into a virtual organ console.

Motherboard: Micro ATX form-factor for Cube case;  
ASUS or ASRock, socket 775, 2 x DDR2 RAM slots, 6 – 10 USB ports;

CPU: Intel Core 2 Quad, Q6600, typically 2.4 – 2.6 GHz

RAM: 2 x 4 Gbyte DDR2 = 8 Gbyte RAM total;

STORAGE: 500 Gbyte SATA fixed disc; DVD RW optical drive;

SOUND: M-Audio Delta 1010LT 8-channel internal PCI card

Operating system: Microsoft Windows 7 Home Premium x64

Installed software: Current Hauptwerk version, two or three free sample sets.



**Guide Cost:** includes supply and construction, delivery at cost.

**£1250**

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## **Hauptwerk PC 2**

(NB: components are subject to availability, and may differ in appearance)

Case: Cube case - approximately 10.6" (H) x 7.9" (W) x 13.2" (D). (Standard cases are available)  
Optical disc access; Floppy disc access; power switch etc.;  
Typically equipped with front panel temperature indicator.  
These cases fit nicely into a virtual organ console.

Motherboard: Micro ATX form-factor for Cube case;  
ASUS or ASRock, socket 775, 4 x DDR2 RAM slots, 6 – 10 USB ports;

CPU: Intel Core 2 Quad, Q8400, typically 2.8 – 3.0 GHz

RAM: 4 x 4 Gbyte DDR2 = 16 Gbyte RAM total.

STORAGE: 1 Terabyte SATA fixed disc; DVD RW optical drive;

SOUND: M-Audio Delta 1010LT 8-channel internal PCI card

Operating system: Microsoft Windows 7 Home Premium x64

Installed software: Current Hauptwerk version, two or three free sample sets.



**Guide Cost:** includes supply and construction, delivery at cost

**£1650**

### **Terms** (no VAT)

25% deposit is required with written and signed order. Please note that once your order is taken we source the components specifically for you, and so cancellation will not be possible.

### **Warranty**

The balance will be invoiced and is payable on despatch/delivery/collection. Motherboard, CPU, RAM, fixed disc & Options are supplied under the relevant manufacturers warranty. Other components have a 1 year warranty which excludes software errors, labour and carriage costs.

### **Delivery options**

Delivery is at cost by carrier, or on-site installation can be arranged subject to £0.65p/mile charge and £50.00/hour whilst on-site. Collection by the end user is of course free of charge.

Please see over for options, such as MIDI to US devices and touchscreen monitors.

## Hauptwerk PC Options

### MIDI – USB Device

MIDI 4x4 -> USB device (M-Audio)

For connecting your MIDI keyboards and pedal board via a single USB port £195.00

### Touchscreen Monitors (NB: all items are subject to availability. Prices are for guidance only)

**Iiyama 17" 4:3 touchscreen** excluding delivery (approx £15.00) £500.00

Model: PLT1731SR

1280x1024 resolution

Multi-touch touchscreen technology for touch features in Windows 7

5ms response time; 900:1 contrast ratio; 200cd/m<sup>2</sup> brightness

2x 1W stereo speakers

Removeable base and VESA mount compatible (100x100mm)

VGA and DVI-D (with HDCP) interfaces

100-240V 50-60Hz

Dimensions (HxWxD): 342x387x202mm; Weight: 5.7kg

3 year manufacturer warranty

**Iiyama 22" 16:9 touchscreen** excluding delivery (approx £15.00) £400.00

Model: PLT2250MTS

Full HD 1920x1080 resolution

Multi-touch touchscreen technology for touch features in Windows 7

5ms response time; 1,000:1 contrast ratio; 260cd/m<sup>2</sup> brightness

2x 1W stereo speakers

Removeable base and VESA mount compatible (100x100mm)

VGA and DVI-D (with HDCP) interfaces

100-240V 50-60Hz

Dimensions (HxWxD): 420x513x263mm; Weight: 6kg

3 year manufacturer warranty

**CTX 15" 4:3** excluding delivery (approx £15.00) £400.00

All of these CTX screens are single touch resistive, which is fine for Hauptwerk control, but probably not so flexible for Windows 7.

The general spec. is similar to the 17" Iiyama in terms of maximum resolution, speed and contrast, VESA mounting, audio and USB connections.

I have supplied many more CTX monitors than Iiyama and they have all gone down well with Hauptwerk users..

**CTX 17" 4:3** excluding delivery (approx £15.00) £470.00

**CTX 19" 4:3** excluding delivery (approx £15.00) £500.00

### Delivery

All monitors are usually available on 5-10 days delivery or less. I don't know why the price is so good on the Iiyama 16:9 screens compared to the 4:3!

The delivery charge is usually £15.00, mainland UK only.

It is usually possible to have a monitor sent directly to your door, and a Google Checkout invoice can be arranged as a method of payment for this method of delivery.

### Warranties

All monitors are supplied under the manufacturer's warranty. Other terms are as described under the Hauptwerk PC section.

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