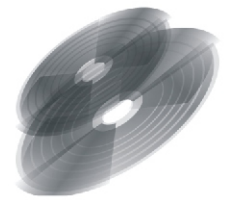


# Virtual CD



## Case Study

### University of Hildesheim

#### The university library at Hildesheim uses Virtual CD by H+H to provide access to electronic journals and databases

#### Where Tradition Meets High Tech

In recent years, academic libraries have made rapid strides: where long rows of card catalogs used to be, users now find multipurpose computer terminals that provide not only book signatures, but also Internet search engines, databases, e-mail and word processing. The library at the University of Hildesheim has been using computer technology for years to make searching easier for its users, and to provide them with access to important digital media.

#### Big for its Size: Hildesheim University Library

With a mere half million volumes, Hildesheim is one of the smaller university libraries. "Precisely because we have to cover a broad spectrum of literature with limited resources, it's all the more important for us to give the students convenient access to electronic journals and databases," explains Benjamin Ahlborn, the library's data processing director. The university has been using products by H+H Software of Göttingen since 1997, beginning with CD-Manager, which was replaced by its successor NetMan in 2000. NetMan distributes information and applications throughout the network. The library administrators were primarily interested in NetMan's support for CD and DVD applications, however. That was why in early 2006 they chose a specialized solution for that field: Virtual CD, also from H+H.



Benjamin Ahlborn, the library's data processing director

#### Software-based CD and DVD Server

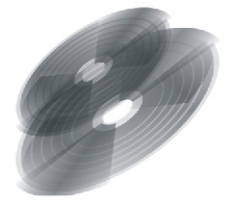
One argument in favor of this decision was that Benjamin Ahlborn was already experienced and pleased with the stand-alone version of Virtual CD in personal use. Virtual CD is a CD and DVD emulation program that allows you to create and manage "image files" containing the complete contents of optical media. In the Virtual CD environment, these images then behave like actual CDs and DVDs. Because they are not physical disks, however, they are called virtual media. In selecting a shared-access solution, the library's management placed high value on convenient administration and low maintenance costs. The resulting choice was the terminal-server variant, Virtual CD TS, and the administrative interface Network Management Server (NMS).



Reading room in the university library at Hildesheim

The University of Hildesheim qualified for an educational license, which meant a price reduction and no user limit. In a terminal server environment, applications are installed on a centralized server and distributed to the workstations from there. Communication takes place under the RDP protocol. The library's server has a Pentium 4 CPU and a gigabyte of memory, and has sufficient disk storage for the CD images. The performance of this configuration has proved satisfactory. The server operating system is Windows 2003 Terminal Server. The demands on terminal hardware are low, since computing power is provided by the server. This means that older PCs can be used without sacrificing convenience. In mid-2006, the University of Hildesheim began deploying thin clients (TC) with its new workstation purchases. These economical workstations have only minimal hardware and software, and are thus well adapted for use in a terminal server infrastructure. Students entering the library's catalog room find the first twenty TC workstations. More are scattered in the reading and study rooms. Furthermore, the UB permits licensed access to CD-ROMs from any workstation on the campus, including those in the administration and departmental buildings.

# Virtual CD



## Case Study

Using a local Virtual CD installation on his workstation, Benjamin Ahlborn generates images of the CDs and DVDs to be installed. In doing so he can use pre-configured settings that provide the optimum reading strategy for each medium. "Once in a while this operation can take a little time, but usually it only takes a few minutes to create an image," Ahlborn explains. The virtual CDs and DVDs are then stored on the terminal server. Once they have been linked with the license management through the Network Management Server, the virtual CDs can then be provided to any workstation in the network. Users access the CD images by "inserting" them in one of up to 23 virtual drives that Virtual CD provides on each workstation. The number of CDs and DVDs that can be managed is limited only by the disk capacity of the server or storage array. At the University of Hildesheim, the server currently offers about 50 CD and DVD images. Another 20 or so titles are available on a local Virtual CD installation.

### Familiar to Users

The students don't have to know anything about virtual CDs or terminal server technology. "Technology is not supposed to make life more complicated for our students and staff. Virtual CD TS has allowed us to do exactly the opposite," Ahlborn says. The virtual CDs appear as shortcuts on the workstation desktops. A double-click connects the computer to the terminal server and requests the corresponding virtual CD. The user clicks "Yes" for confirmation, and the virtual medium is loaded in a virtual drive and ready to go. In this way the students can leaf through electronic journals and search in digital databases as if they were present locally on the workstation. "Thanks to the integrated scripting console, I can adapt the way Virtual CD appears to suit our needs. For example, I can make custom dialogs and show or hide access to CD images and administration. I use this function all the time," says Ahlborn.

### Conformance to License Conditions

Electronic media on CD and DVD are a convenient research resource for the students. Some publishers' license conditions can be much more complicated, however. To make sure the University does not violate these strict agreements, Benjamin Ahlborn uses the Network Management Server (NMS) to monitor the CD licenses and use. "Some of these license models are a nightmare," says Ahlborn in describing the problem. "Although NMS does most of the work for me, some products with especially strict rules can only be provided on a single workstation with a local Virtual CD installation."

### About the University of Hildesheim

The University of Hildesheim is composed of three academic faculties: Education and Social Sciences, Cultural Studies and Aesthetic Communication, and Information and Communication Sciences.



University of Hildesheim

The University of Hildesheim has a manageable size, with 4,500 students who enjoy personal supervision that mass education institutions cannot offer. Restricted admission to all courses of study is a consequence of the University's commitment to quality. A balanced mixture of theory and practice ensures that students gain both academic qualifications and practical knowledge. Studies are enriched with practical experience from the first semester on. The University maintains partnerships with schools and businesses in the region, and with numerous national and international cultural institutions.

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### About H+H Software GmbH

H+H Software GmbH, founded in 1989, is a systems and software manufacturer located in Göttingen. The company's core business includes consulting and the development and marketing of application, license and network management solutions. H+H Software's clientele is mainly composed of industrial enterprises, small businesses, universities, government agencies, libraries, and schools. H+H serves individual users too with the stand-alone version of its popular CD and DVD emulator Virtual CD.

For details, visit [www.hh-software.com](http://www.hh-software.com).

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