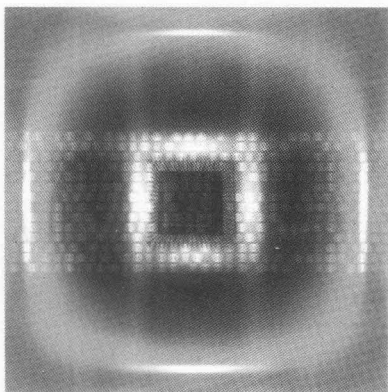




**An
Overview
of
Public Access Computer
Software
Management**



BY RICHARD WAYNE



Tools for Libraries

Today, there are many easy-to-use and cost-effective tools to help manage public access computers.

Most libraries now recognize that public access computers are essential to providing excellent service to patrons. Managing these computers has become a major responsibility for library staffs. Patrons expect to find secure and well-maintained computers that have simple, stable, and predictable interfaces.

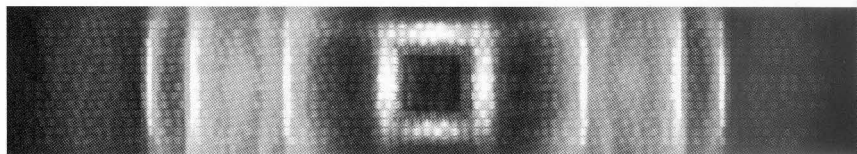
In my capacity as assistant director for Information Systems at The University of Texas Southwestern Medical Center at Dallas (UT Southwestern) Library, I have grappled with public access computer issues for years. Ten years ago there were few software tools available; however, today there are many easy-to-use and cost-effective alternatives to help manage public access computers.

Tools to Help Manage PACs

I'm about to describe a representative sample of software tools in several important categories. This article does not attempt to address all programs in all software management categories because there are too many products to do that. I'll discuss specific products from specific vendors, but won't recommend any. You should do further research and make a purchase decision appropriate to your environment. Most of the software discussed in this article is available for testing prior to purchase. Some of the programs are free.

The categories of management software that I will address are setup software, security programs, integrity maintenance software, browser control tools, antivirus software, anti-spyware software, patch management tools, session managers, print management systems, system utilities, and some Microsoft software options. However, I won't address filtering software, anti-spam software, privacy tools, network troubleshooting tools, firewall software, and some other categories of management tools in this article.

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Computer Setup

I prefer an iterative method of developing a new computer configuration. Richard Wayne's Iterative Development Methodology goes something like this:

- Start with the best available hardware. The new hardware ideally consists of identical models to minimize deployment issues.
- Talk to library and information technology staff and patrons, and then create your first hardware and software configuration for testing.
- Place the configuration someplace where you can gather further staff feedback.
- Develop a second computer configuration based upon staff feedback.
- Place the configuration in a location to gather further staff and patron feedback.
- Develop a third configuration based upon staff and patron feedback.
- Place the configuration in a limited number of locations for further staff and patron feedback. Further revise the configuration if necessary after usage.
- Replicate the revised configuration by replacing the old configuration with the revision.

Once you have developed your final configuration, preserve it. Make a copy of the configuration and place it on a server, another computer, an external hard drive, or a DVD. Then you can replicate your configuration using software tools like these:

Symantec Ghost can back up, store, and replicate configuration images. PowerQuest's DeployCenter has superseded PowerQuest's Drive Image Pro and can also help deploy software

configurations. In December 2003, Symantec acquired PowerQuest.

Develop a test environment if possible. Then you can try various software packages without impacting your production systems. Your test environment should mimic your production environment as closely as possible. Microsoft's Virtual PC 2004 can help you to emulate several operating system environments on a single test computer.

Security Programs

I will discuss security programs in two sections. Those that prevent patrons from intentional or unintentional mischief and access are presented in this section. The programs that clean up the potential clutter after patron sessions are listed in the next section ("integrity maintenance software").

"You need to have aggressive, real-time virus scanning enabled at all times."

CybraryN from Computers By Design prevents changes to a PC's configuration. It can be configured to authenticate to your integrated library system (ILS). For example, CybraryN works with systems from Innovative, Dynix, Sirsi, Gaylord, and other ILS vendors. If a patron does not have a valid bar code, has excessive overdues, or is not a valid patron type, then he or she will not be able to use the public access computer if you design it that way.

CybraryN provides a menu and other features to prevent patrons from corrupting the computer's software. The patron is locked into the CybraryN interface and cannot execute programs or utilities that damage the configuration.

Fortres 101 from Fortres Grand does not provide a menu, but it does lock down specific Windows settings. By locking Windows settings, you can control what your patrons can and can't do. Fool-Proof Security from Riverdeep is another product that provides desktop security by locking down Windows features.

Integrity Maintenance Software

Even with security software loaded, it is likely that, over time, your public access computer software will become corrupted and collect extraneous data. The solution to the problem is integrity maintenance software.

Centurion Technologies provides two alternatives. Centurion Guard uses both hardware and software. Drive-Shield uses software only. Upon reboot, any changes patrons have made are removed, and the system is restored to its initial configuration.

Deep Freeze from Faronics Technologies and Clean Slate from Fortres Grand are also software-only options for integrity maintenance. All of the products in this category allow you to protect only the drives that you wish to protect. For example, if you have an antivirus product on your D:\ drive, then you could configure the software to protect your C:\ drive from changes, but not your D:\ drive.

Browser Control Tools

Let's face it, the Web is tremendously popular with our library patrons. As a result, they will attempt to use every available computer for general Web access. Sometimes, these can be computers designated for OPAC or licensed database use only. When that happens, you want to make sure that *only* the catalog or subscription databases can be accessed from those computers. If you don't, they will end up becoming general Internet access computers.

Public Web Browser (PWB) from TeamSoftware Solutions controls Web



browser sessions. PWB replaces the Internet Explorer interface with an interface that is highly configurable. It allows you to specify sites that can or can't be accessed via the browser. PWB also lets you customize a number of other options such as buttons, drop-down menu items, home page default, pop-up policies, printing settings, and download capabilities.

K-Meleon from kmeleon.org also allows you to control many browser functions. It is free, open source software. WINSelect from Faronics gives you control over many browser and Windows features.

Antivirus Software

In 1992, extensive media coverage led to Michelangelo virus hysteria. It was a DOS-based virus and was a new experience for computer users at that time. At UT Southwestern, we distributed Michelangelo detection and removal tools on diskette to hundreds of customers at a centralized "crisis center."

Virus writers have come a long way, and so have the applications to combat them. Today, you need to update your antivirus software at least daily. You need to have aggressive, real-time virus scanning enabled at all times.

A number of good tools are available to help with this effort. A few of the major antivirus vendors are Computer Associates, McAfee, Panda, Sophos, and Symantec.

Anti-Spyware Software

Running anti-spyware software on a system for the first time can be an enlightening and shocking experience. It's not uncommon to find hundreds of pieces of spyware on a system. Spyware can violate your privacy and compromise the integrity of your systems.

You can download free anti-spyware software from several sites. One tool is Spybot – Search & Destroy from Patrick M. Kolla. Another free appli-

cation (for non-commercial use) is Ad-aware from Lavasoft.

Patch Management Tools

Information technology professionals have been accustomed to keeping antivirus software up-to-date. The Blaster worm opened our eyes to a new threat in 2003—we saw that Windows systems also needed to be kept up-to-date with critical updates issued by Microsoft. The industry has been in a whirlwind of activity since Blaster, trying to anticipate the next round of malicious software. There are a number of applications available to help keep systems patched and secure.

Microsoft has developed a patch management tool called Software Update Services or SUS. It is used to deploy critical Windows updates throughout your library. As of this writing, SUS 1.0 with Service Pack 1 is available. SUS 2.0 is in development and has been renamed "Windows Update Services."

Shavlik Technologies provides a powerful patch management product called HFNetChkPro. The Microsoft Baseline Security Analyzer (MBSA) uses the HFNetChkPro scanning engine. MBSA is a free tool that allows systems administrators to identify required patches for computers throughout the network.

Session Managers

Your staff members could spend a great deal of their time matching patrons to available public access computers as well as refereeing fights for available computers. [Editor's Note: See the feature on page 18.] However, the process can be automated to free your staff for more sophisticated (and safer) patron interactions.

EnvisionWare's PC Reservation controls patron access to public access computers. It can work with an ILS to authenticate patrons prior to granting access to a computer. It can be config-

ured for use in a patron self-service mode or a staff-managed mode. It even supports making reservations via the Web or telephone.

"Running anti-spyware software on a system for the first time can be an enlightening and shocking experience."

Comprise Technologies offers Smart Access Management or SAM. It has a number of interesting modules for time, reservation, Internet, desktop, and report management.

Print Management Systems

Print management systems help to reduce wasted paper and ink cartridges. They also make the printing cost-recovery process more efficient for both patrons and staff.

With LPT:One from EnvisionWare, you can set a price per page, a maximum number of pages that a patron can print, and different prices per printer. A simple dialogue leads the patron through the printing process and gives her an opportunity to cancel printing altogether.

Computers By Design, GoPrint Systems, and Pharos Systems also offer solutions to manage printing. Most systems can be controlled by staff or can work independently with both card and cash payment systems.

System Utilities

System utilities is a broad category. However, it gives me the opportunity to mention some miscellaneous tools that I have found to be helpful.

To Contact the Companies

Computer Setup

Symantec Corp. (Ghost, DeployCenter)
555 International Way
Springfield, OR 97477-1098
800/721-3934
<http://enterprisesecurity.symantec.com/publicsector>

Microsoft Corp. (Virtual PC)
One Microsoft Way
Redmond, WA 98052-6399
425/882-8080
<http://www.microsoft.com>

Security Programs

Computers By Design, Inc. (CybraryN)
120 Lake Ave. S.
Nesconset, NY 11767
800/THE-TOWN
<http://www.cbdusa.com>

Fortres Grand Corp. (Fortres 101)
P.O. Box 888
Plymouth, IN 46563
800/331-0372
<http://www.fortres.com>

Riverdeep Interactive Learning, Inc.
(FoolProof Security)
500 Redwood Blvd.
Novato, CA 94947
800/825-4420
<http://www.riverdeep.net>

Integrity Maintenance Software

Centurion Technologies, Inc.
(Centurion Guard, DriveShield)
512 Rudder Rd.
Fenton, MO 63026
800/224-7977
<http://www.centurion-tech.com>

Faronics Technologies USA, Inc.
(Deep Freeze)
170-2411 Old Crow Canyon Rd.
San Ramon, CA 94583
800/943-6422
<http://www.deepfreezeusa.com>

Fortres Grand Corp. (Clean Slate)
P.O. Box 888
Plymouth, IN 46563
800/331-0372
<http://www.fortres.com>

Browser Control Tools

TeamSoftware Solutions, Inc.
(Public Web Browser)
2017 24th St. SE
Rochester, MN 55904
507/252-8344
<http://teamssoftware.bizland.com>

kmeleon.org (K-Meleon)
<http://kmeleon.sourceforge.net>
(Company works only through the Internet.)

Faronics Technologies USA, Inc. (WINSelect)
170-2411 Old Crow Canyon Rd.
San Ramon, CA 94583
800/943-6422
<http://www.faronics.com>

Antivirus Software

Computer Associates International, Inc.
(eTrust Antivirus)
One Computer Associates Plaza
Islandia, NY 11749
800/225-5224
<http://www.ca.com>

Network Associates Corp. (McAfee Anti-Virus)
3965 Freedom Circle
Santa Clara, CA 95054
888/VIRUSNO
<http://www.nai.com>

Panda Headquarters USA (BusinesSecure)
230 N. Maryland Ave. 303
P.O. Box 10578
Glendale, CA 91209
818/543-6901
<http://www.pandasoftware.com>

Sophos, Inc. (Sophos Anti-Virus)
6 Kimball Lane, 4th Floor
Lynnfield, MA 01940
888/767-4679 (Eastern, Central USA)
888/866-2802 (Western USA, Canada)
<http://www.sophos.com>

Symantec Corp. (Symantec AntiVirus)
555 International Way
Springfield, OR 97477-1098
800/721-3934
<http://enterprisesecurity.symantec.com/publicsector>

Anti-Spyware Software

Spybot (Spybot — Search & Destroy)
<http://www.spybot.info>
(Company works only through the Internet.)

Nicolas Stark Computing AB
(Lavasoft Ad-aware)
Centrumvägen 39
Box 80
52043 Falköping
Sweden
011-46-515-530-03
<http://www.lavasoftusa.com>

Patch Management Tools

Microsoft Corp. (Software Update Services,
Windows Update Services, Microsoft
Baseline Security Analyzer)
One Microsoft Way
Redmond, WA 98052-6399
425/882-8080
<http://www.microsoft.com>

Shavlik Technologies (HFNetChkPro)
Rosedale Corporate Plaza
2665 Long Lake Rd., Suite 400
Roseville, MN 55113
800/690-6911
<http://www.shavlik.com>

Session Managers

EnvisionWare, Inc. (PC Reservation)
2810 Premiere Parkway NW, Suite 350
Duluth, GA 30097-8912
800/216-8370
<http://www.envisionware.com>

Comprise Technologies, Inc.
(Smart Access Management)
1026 Route 36 E.
P.O. Box 425
Navesink, NJ 07752
800/854-6822
www.comprisetechologies.com

Print Management Systems

EnvisionWare, Inc. (LPT:One)
2810 Premiere Parkway NW, Suite 350
Duluth, GA 30097-8912
800/216-8370
<http://www.envisionware.com>

Computers By Design, Inc. (CybraryPRINT)
120 Lake Ave. S.
Nesconset, NY 11767
800/THE-TOWN
<http://www.cbdusa.com>

GoPrint Systems, Inc. (GS-3)
440 Regal Lily Lane, Suite 200
San Ramon, CA 94583
925/648-5066
<http://www.goprint.com>

Pharos Systems (Uniprint)
333 West Commercial St., Suite 3500
East Rochester, NY 14445
888/864-7768
<http://www.pharos.com>

System Utilities

Symantec Corp. (Norton SystemWorks)
555 International Way
Springfield, OR 97477-1098
800/721-3934
<http://enterprisesecurity.symantec.com/publicsector>

V Communications, Inc.
(Partition Commander)
2290 N. First St., Suite 101
San Jose, CA 95131
800/648-8266
<http://www.v-com.com>

XQDC, Ltd. (X-Setup Pro)
39/40 Calthorpe Rd.
B15 ITS Birmingham
United Kingdom
011-49-721-62811970
(Phone is for German office.)
<http://www.xqdc.us>

Veteran Computer Solutions (ToolStar*Test)
33 Fourth St. N., Suite 210
St. Petersburg, FL 33701
800/908-1VCS
<http://www.toolhouseusa.com>

Ultimate Boot CD
<http://www.ultimatebootcd.com>
(Company works only through the Internet.)

Some Microsoft Software Options

Microsoft Corp. (Internet Explorer
Administration Kit, PowerToys,
Systems Management Server)
One Microsoft Way
Redmond, WA 98052-6399
425/882-8080
<http://www.microsoft.com>



Norton SystemWorks from Symantec includes a number of products, such as Norton Utilities, which can detect Windows and disk problems and fix them, as well as optimize file storage on your hard drive.

Partition Commander from VCOM can create a new partition on an existing system. I have used this product to create a new partition for antivirus software. That partition is treated differently than the others on the system. For example, on systems with Centurion Guard, the partition with antivirus software is not cleared at reboot.

X-Setup Pro from XQDC, Ltd. is a tweaker program. It can help you to modify Windows settings that are buried deep within the Windows registry.

Multiyear system warranties are commonly available. Hardware has also become more dependable. However, there are times when you still need a bootable hardware diagnostic program that can help troubleshoot hardware-related problems. ToolStar* Test from Veteran Computer Solutions has helped me out of a few jams. Another useful tool in this category is the Ultimate Boot CD.

Some Microsoft Software Options

Microsoft Windows, especially the more recent versions, offers options to perform some of the functions that I've addressed in this article. In most cases, features can be applied from a server or at individual workstations.

Group Policy can control the Windows desktop as well as many other Windows features. In Windows 2000 and XP, you can run Microsoft Management Console to set group policies. An example may help to demonstrate the feature's potential: In Windows XP, you can set Group Policy to prevent patrons from seeing the Network Neighborhood icon on the desktop.

NTFS is the NT file system. A partition that is formatted with NTFS has extensive security capabilities. For ex-

ample, you can set read-only access to a folder for specific users or groups.

Windows versions since NT have different user types. In Windows XP, for example, the user "public" might be a limited user (restricted to performing only certain functions). The sysadmin would be an "administrator" user.

Microsoft provides the Internet Explorer Administration Kit or IEAK to manage IE. It was designed to help configure and deploy the browser.

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Microsoft offers PowerToys for various versions of Windows. Within PowerToys is a program called Tweak UI. It is somewhat similar to X-Setup Pro mentioned earlier. It provides a graphical interface that allows you to modify a number of Windows settings.

Finally, Systems Management Server or SMS is offered by Microsoft as a comprehensive solution for change and configuration management. It can help administrators in the areas of application deployment, asset management, and security patch management.

Just a Quick Overview

I have breezed through many software tools. Many more are available to help you manage your public access computers. Use this article as a starting point. After analyzing the needs of your particular library, you should do further research. You can probably find a few affordable tools to meet the needs of your environment. There are a number of choices in most of the categories of software that I have discussed. Many

of the vendors mentioned have other products that may also help you.

Software tools must be maintained and kept up-to-date in order to function well. In many cases, vendors offer companion network tools that provide the ability to maintain all computers from a single administrative workstation or server. Some of the tools also have extensive reporting capability to assist in decision making.

Don't despair. There are a number of commercial and free products and resources to help you manage one of your biggest challenges—the public access computer.



Richard Wayne has managed the systems group at The University of Texas Southwestern Medical Center at Dallas Library since 1992. He does hands-on technical work with Windows, UNIX, Macintosh, PDA, wireless, and other technologies. Prior to joining UT Southwestern, he was in the information technology field for more than 10 years in a number of technical and managerial capacities. He is also the principal of Strategic Information Management Services, a library technology consulting firm. He has worked with a wide range of library technologies in public, academic, and special libraries. His particular area of expertise is information security in the library environment. His e-mail address is richard.wayne@utsouthwestern.edu.

References

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- Jennifer Ward, "The Library Web Manager's Reference Center," Berkeley Digital Library SunSITE, May 20, 2003. <http://sunsite.berkeley.edu/Web4Lib/RefCenter/lwmrcpublic.html>
- Richard Wayne, "Links to Desktop, Company, and Enterprise Security Resources," *Strategic Information Management Services*, March 10, 2004. http://www.strategicinformation.com/d_security/secure_links.htm