

Securing Windows 2000/XP Computers Using the Free Public Access Computer Configuration Tool

Executive Summary

Please Note: The Public Access Computer Configuration Tool that the presenters will demonstrate in this session is a beta version of this software. This beta version has certain limitations that are described at the end of this summary. The next version of the tool, due for release Summer 2003, will be closely based upon the same concepts and technology presented here.

Backgrounder

The Bill & Melinda Gates Foundation's U.S. Library Program is dedicated to partnering with public libraries to bring access to computers, the Internet and digital information for patrons in low-income communities throughout the United States. Learn more about the U.S. Library Program at <http://www.gatesfoundation.org/libraries/uslibraryprogram/default.htm>.

Evolution of the Gates Library Computer Security Configuration

The U.S. Library Program has sought to provide a hardware and software configuration on the Gates Library Computers that meets the following criteria:

- Excellent desktop security – prevents users from causing inadvertent or malicious damage, and reduces downtime
- User-friendly for multiple populations – takes into consideration such concerns as differing levels of accessibility and non-English speaking users.
- Low maintenance for administrators – sustainable and generally more viable in the longer term.
- Flexible – able to be modified by administrators, to satisfy the needs of both large and small libraries.

Taking these criteria into account, the Library Program specifically designed a technology model for public access computing in libraries. Each granted computer comes pre-configured with software installed at the factory, and with user accounts for administrators, and different patron groups. For example, a children's user account is configured to include all of the installed children's learning tools while another account is configured to take advantage of the operating systems' built-in accessibility features.

The various Gates Library Computers granted from June 1997 to December 2001 were built upon the Windows NT 4.0 operating system and are collectively referred to here as the *Windows NT 4.0 model*. This model met the security, usability and maintenance criteria listed above. However, administrators who wished to make certain changes to these computers sometimes found the computers challenging to work with because the security configuration consisted of numerous manual edits to the operating system, not all of which were well-documented.

In January 2002, the Library Program began granting the *Windows 2000 model* Gates Library Computers. The end-users' experience on the Windows 2000 model is very similar to that of the Windows NT 4.0 model. However, the removal and re-application of security features

and other customizations on this model is fully automated and well documented. This automation is made possible by The Public Access Computer Configuration Tool.

Introduction to the Public Access Computer Configuration Tool

The Public Access Computer Configuration Tool's three components are applied through a standard Windows installer program, via the Start Menu, and removable through Add/Remove programs. It consists of two parts:

- The *compiler*, which the Foundation uses to build the user and security configuration.
- The *installer*, through which an administrator adds and removes the tool's Profiles, Profile Restrictions and System Restrictions components.

This presentation will focus on the installer in explaining and demonstrating the software's functionality and possible applications.

Obtaining and Installing the Public Access Computer Configuration Tool

This software can be freely downloaded from

www.pacomputing.org/configurator/configurator.htm. This Web page contains instructions for installing the tool and its operating system-specific configuration files. Updates to the www.pacomputing.org Web site will likely provide access to the tool via the site's home page. The next version of this software is scheduled for release Summer 2003.

Using the Public Access Computer Configuration Tool

Presenters will demonstrate and explain the following during this session (more details will be provided in Web-accessible handouts):

- Installing the *Public Access Computer Profiles* component
 - Custom user accounts and profiles are added to the computer.
 - User profile information is stored in a *C:\Profiles* folder, making it possible to secure these profiles without affecting pre-existing profiles or user accounts.
- Installing the *Public Access Computer Profile Restrictions* component
 - User profiles are converted to mandatory profiles so that the profile always appears in its original state when a person logs on.
 - System Policy Editor is added to the computer.
 - Users cannot access Internet Options in Internet Explorer or view cached web pages viewed by previous computer users.
 - Public users cannot permanently change the Start menu, taskbar or desktop settings.
 - Public users cannot access the Control Panel or the registry editing tools.
 - Public users cannot view most of the contents of the computer and network.
- Installing the *Public Access Computer System Restrictions* component
 - Username that was used last is not visible in the Log On to Windows dialog box.
 - Non-Administrators cannot disable the operating system by altering critical system files, or by accessing administrative tools or the Control Panel.

Benefits and Drawbacks of the Public Access Computer Configuration Tool

Some of the benefits of using this software are:

- Automated user account and user profile creation.
- Automated assignment of mandatory profiles.
- Automated installation and configuration of the System Policy Editor management interface.
- Automated assignment of user-specific restrictions.
- No server/network dependency.
- Automated removal and re-application of pre-set security configuration and other customizations.
- It's free!

Some of the potential drawbacks to using the current version of the software are:

- User accounts must keep the names provided (*all, bigprint, child, language, spanish* and *staff*).
- Implemented on a computer-by-computer basis – administration cannot be entirely centralized.
- Limited documentation.
- Must accompany a hard drive protection solution (such as Centurion Guard) for 100% computer protection.

Future Plans for the Public Access Computer Configuration Tool

Future plans for this software include:

- A name change – next version will be the *Public Access Computer Security Tool*.
- Administrators will be able to select their own names for users they create.
- An optional “wizard”-type interface will step administrators through the process of customizing users' profiles.
- Administrators will be able to export settings configured on one computer to another computer.
- Thorough documentation.
- Windows 2000 Professional and Windows XP-compatible.
- Hardware-independent.
- Due for release Summer 2003 (and still free!)