

# Print·Limit Pro

Advanced Print Management



## IMPLEMENTATION GUIDE



GenevaLogic

ACTIVE TEACHING SYSTEMS

## Notice

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Document Date: March 3, 2006

Document Version: 1.1

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## About this Guide

This document assists network administrators and IT managers with the rollout process and addresses both the associated technical and administration tasks in an endeavor to minimize disruption to users and ensure a smooth transition. A well-planned deployment minimizes the impact on network users. We recommend that you use this guide as a starting point and tailor the information here to fit your organization's requirements.

**Note:** For information on how to install Print-Limit Pro, refer to the *Print-Limit Pro User Guide*, which is available from [www.genevalogic.com](http://www.genevalogic.com).

### **TASK 1: Determine the Project Scope**

Before you install Print-Limit Pro, take a few moments to consider the following questions:

- What are my reasons for implementing Print-Limit Pro?
- How will I use Print-Limit Pro to achieve these objectives?
- What effect will Print-Limit Pro have on my users and any existing IT usage policies?
- Who else should be involved in these considerations and the implementation process?

Print-Limit Pro can be implemented in a number of different control modes ranging from behind the scenes (silent logging) to a pay-per-print environment. The control mode you select influences internal policy and procedures and this impact should be considered prior to full deployment. At the technical level it takes a few mouse clicks to install Print-Limit Pro; however, policy changes at the management level may take longer to implement. To help ensure a successful project, discuss the Print-Limit Pro implementation with all interested parties prior to deployment.

### **TASK 2: Understand the System**

Before deploying Print-Limit Pro on a live network, system administrators and IT managers should evaluate and understand the capabilities of Print-Limit Pro in a test environment. If your organization does not have a server or system dedicated to testing, we recommend that you install the Print-Limit Pro trial version on a non-critical desktop computer with a Windows XP operating system installed.

**Note:** You can install a 30-day evaluation version, which is available from [www.genevalogic.com](http://www.genevalogic.com).

### **TASK 3: Select the Control Mode**

The control mode defines how Print-Limit Pro interacts with the users and controls their print usage. The control modes available listed in order of user impact are:

1. Silent monitoring, which has no control over print jobs. Print-Limit Pro monitors printer use for reporting purposes.
2. Simple quota system that allocates a budget to users.

3. Quota system that allocates a budget to users and allows them to purchase additional credit.
4. Up-front payment. Users are required to pay for their print jobs.

### ***Silent Monitoring***

The silent monitoring control model gives users unrestricted access to printers. Print-Limit Pro runs in the background and collects statistics on printer activity and its associated cost. All data is reportable and available via Print-Limit Pro's administration interface. Silent monitoring mode is popular in a business environment where management needs combined information on user print activity.

### ***Quota System***

The majority of organizations that adopt Print-Limit Pro choose to implement a quota system. Under this model users are allocated a budget on either a daily, weekly, or monthly basis. It is the user's responsibility to stay within the allocated allowance. When a user exceeds his or her allowance, that person loses access to printing. Some organizations allow users to request additional print credit through management approval, or, in an educational environment, it is common to sell users additional credit via PrintCards.

#### **Example**

Smithtown High School provides students with \$5.00 a week to cover printing costs. If users need additional credit, they can purchase a PrintCard from the school cafeteria or library.

### ***Up-Front Payment***

Full, up-front payment environments or user-pays are used in some schools and universities. Users are given a zero balance and must add money to their accounts before they can print. Often PrintCards are used as a convenient way to manage the payment process.

### ***Changing Your Selected Control Mode***

You can easily change the control mode after you install Print-Limit Pro. The program does not impose any restrictions on this policy decision; however, be aware of how the change will affect your organization. For example, evaluate how moving from silent mode, which is a free service, to the full payment mode will affect users. A recommended approach for changing control modes is to phase in the change. For example, you can move from the silent mode to a quota system with a free quota allocation, and then move to a full user-pays model at a later date.

## **TASK 4: Pre-Installation Preparation**

Print-Limit Pro requires a correctly configured network environment. Most organizations with a Windows Domain network can install and use Print-Limit Pro without any network reconfiguration. Smaller organizations that run simple peer-to-peer networks may need to plan some changes.

**Checklist:**

**Verify that users have logon accounts and passwords**

Print-Limit Pro uses a Windows logon names to track user identity; it does not maintain its own users and passwords. It is important that your users have individual accounts and passwords and are aware that they should keep their passwords secure.

**Printers are hosted on a server**

Print-Limit Pro works by intercepting print jobs passing via a print queue. Typically the hosting of a print queue is called acting as a print server. Print-Limit Pro supports both Windows- and Linux-based print servers. In a typical network environment all printers are captured on a server and then shared to users as network resources. The print server can be an existing file server or a server running other software. In a large network, a dedicated print server is usually required. The print server model provides a single point of control for printer permissions and queue management.

Although Print-Limit Pro can centrally track print queues hosted on multiple computers, it is best practice to centralize printers onto the minimum number of systems or servers. Typically this requires that you:

- Ensure network printers (printers with a network interface) are centrally captured on the server(s) and shared using standard Windows printer sharing.
- Map network clients (workstations) to the printers shared on the network.
- Consider networking existing Parallel Port or USB printers by using hardware print server hub devices.

Additional information on the required setup is covered in the *Print-Limit Pro User Guide*.

**Printers use supported drivers**

Print-Limit Pro works with the majority of printer hardware without any additional configuration. Most printers use Postscript or PCL drivers (Postscript and PCL refer to the printer language used by the driver). Many high-end printers support multiple languages including proprietary languages not supported by Print-Limit Pro. Technical staff should check which drivers are available. If a selection of drivers is available, select according to this order of preference:

1. Postscript (any level)
2. PCLXL or PCL6
3. PCL 5 or other

**Schedule downtime and ensure required information is at hand**

We recommend that you schedule about 30-minutes of downtime for installation. Users should be aware of the potential disruption of services. This is especially important in the event that you must restart the print server.

Technical staff should also ensure they have technical information at hand including:

- The name of the domain server or an Active Directory node
- User name and passwords for both a network and local Administrator account
- Access to the Windows installation CD in case an additional component is required, such as Internet Information Server.

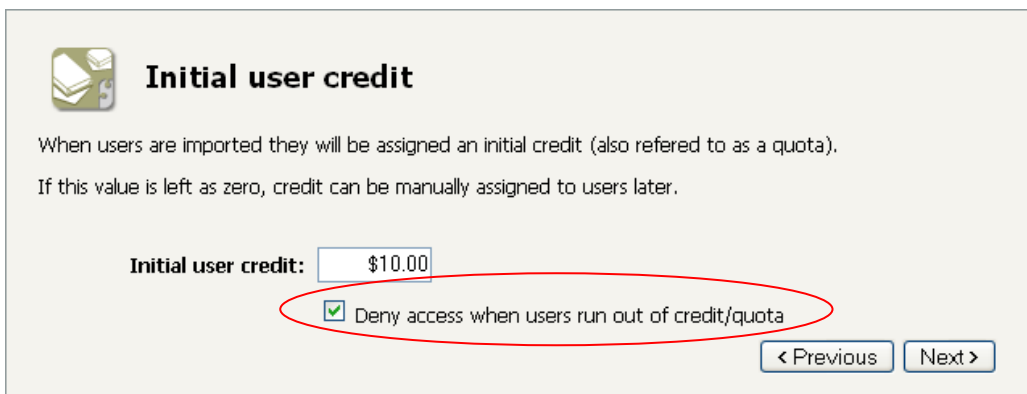
## TASK 5: Installing Print-Limit Pro in a Test Environment

We recommend that you first roll out Print-Limit Pro in silent monitoring mode, even if your organization's immediate goal is to use Print-Limit Pro to implement quotas or print charging. Silent monitoring allows you to test and verify the program without mistakenly denying access to resources.

### *How to setup silent monitoring mode*

The idea is to grant all users printing privileges so that in the event that their account drops to zero, access will not be denied. We recommend the following installation procedure:

- **Install** Print-Limit Pro on your server(s).
- **Run** Print-Limit Pro for the first time. The setup wizard opens.
- **Follow** the instructions on the screen and select your domain server and other settings.
- **During** the wizard, clear the **Deny access when users run out of credit/quota** check box.
- **Continue** configuration by adding printers and defining costs for services.



**Initial user credit**

When users are imported they will be assigned an initial credit (also referred to as a quota).  
If this value is left as zero, credit can be manually assigned to users later.

Initial user credit:

Deny access when users run out of credit/quota

< Previous    Next >

During the wizard, clear the **Deny access when users run out of credit/quota** check box.

## TASK 6: Test Print-Limit

Testing is an important step with any software deployment project. Use the following test plan to verify the setup and that charging rules work as expected.

### ***Printer-Related Tests***

**AIM:** To verify printers are correctly configured and supported by Print-Limit Pro and charging works as expected.

**METHOD:** Log on to a network workstation under a standard user account and print test documents for each test case. Repeat the test cycle for all printers.

Test	Test Criteria	Passed
Print a single page document.	Ensure the print log lists the job as a single page and the calculated cost is correct. Ensure no error messages are listed in the Print-Limit Pro Application Log.	
Print a multi-page document	Ensure the print log lists the job with the correct page count and the calculated cost is correct. Ensure no error messages are listed in the Print-Limit Pro Application Log.	
Print a color document with images	Ensure the print log lists the job with the correct page count and the calculated cost is correct. Ensure no error messages are listed in the Print-Limit Pro Application Log.	
If you use Advanced Charging options, print documents that use the charging types you have defined, such as grayscale or duplex discounts.	Ensure the print log lists the job with the correct calculated cost. Ensure no error messages are listed in the Print-Limit Pro Application Event Log.	
User Accounting	Verify that all printed test documents are listed under the correct user account and that the page count and account balance associated with the user's account have changed accordingly.	
Printer Accounting	Verify that all printed test documents have increased the printer's page count counter.	

**Operational Tests**

**AIM:** To verify user management and related tasks work as expected.

**METHOD:** Perform common user management tasks and verify the operations work and log as expected.

Test	Test Criteria	Passed
Set User's Credit	Select a test user in the User List and add a non-zero amount to the account balance. Click the Transaction History tab and verify the amount is applied and a transaction was recorded against the account.	
Changing a user's restriction	Select a test user in the User List and the account balance to zero. Select the <b>Restricted</b> check box. Verify that printing is denied and that the user receives the Print Job Denied message.	
Auto Scheduling	Set up rules under the Groups section to allocate credit on a daily basis. For example, place a \$1.00 daily allocation on the <b>[All Users]</b> group. Check in 24 hours later and verify the credit was allocated to users and the event was recorded in the transaction and application event logs.	
User Creation	In the Groups section, define an initial credit amount for new users. Add a test user to the domain. Print a document from the test user account. Verify that the account was created as per the defined rules. Delete the test account.	
Remove Access	Repeat the first two tests from a remote system logging in using a standard Web browser accessing the URL: http://[server]:9191/admin.	
User Transfer	Perform this test if your organization plans on allowing users to transfer funds to other users. Log on as a test user and open the browser to the URL: http://[server]:9191/user. Click <b>Transfer</b> and transfer funds to another account. Next, log on as and administrator and verify that the transfer is logged as a transaction.	
PrintCards	Perform this test if your organization plans on using PrintCards (pre-paid cards). Follow the instructions in the <i>Print-Limit Pro User Guide</i> to create a test batch of 10 cards. Import the PrintCard numbers (the *.tnd file) into the system. Log on as a test user, enter the card number and verify the equivalent monies were applied.	

**Other Testing**

We suggest Print-Limit Pro run in silent mode for testing purposes for a period of one week. Regularly inspect the Print-Limit Pro Application Log for error messages or reported problems.

## TASK 7: Technical Support

If you experience any problems, need help with installation or configuration, or have any general questions about Print-Limit Pro, please contact Technical Support:

In North America	All Other Locations
Phone: 866-725-7803 (toll free) E-mail: support.us@genevalogic.com Web: www.genevalogic.com Our hours are 7:30 AM–4:30 PM Pacific Time.	Outside of North America, the technical support of our products is provided through our international network of distributors and resellers. Please contact the local GenevaLogic distributor in your area. For a list of distributors, visit our international support page at www.genevalogic.com.

## TASK 8: Preparation for Rollout

After you install and test Print-Limit Pro you can fully address policy related issues, user training, and user experience.

### ***Policy Changes***

Many organizations have a formal Acceptable Use policy or informal rules for using IT equipment. Consider modifying these existing policies or documentation before you roll out Print-Limit Pro to your organization.

### ***Staff Training***

Print-Limit Pro provides a special Web-based management interface designed for non-technical users; however, we recommend that experienced technical staff train other Print-Limit Pro administrators the following management tasks:

- Monitor printer activity and use.
- Collect payments and add print credit to user accounts.
- Handle refunds or requests for additional print credit.

After training staff members, add their names to the list of approved Print-Limit Pro administrators. This process is covered in detail in the *Print-Limit Pro User Guide*.

### ***End User Training***

End user training includes explaining policy changes and promoting general awareness of the system. Consider the following briefing points when addressing end user training:

#### **For Silent Monitoring:**

- Consider informing users that their print use will be monitored. Organizations that announce such a policy change often see a 10% to 20% reduction in printing as users become aware that inefficient printer use is tracked.

#### **For a Quota System:**

- Explain why the quota system is being implemented.
- Detail when the system will come into effect.

- List how much credit will be provided to users.
- Explain what the allowance covers and how it can be used.
- Provide instructions on what happens when users run out of credit. For example, explain how to purchase a PrintCard.
- Instruct users how to monitor their account status and print usage from the Web.
- Provide a general explanation of any changes to your IT usage policies.

#### **For Up-Front Payment Systems**

- Explain why the print charging system is being implemented.
- Detail when the system will come into effect.
- Explain how users can add credit to their accounts.
- Instruct users how to monitor their account status and print usage from the Web.
- Provide a general explanation of any changes to your IT usage policies.

In small organizations it may be possible to convey this information in a single day. With larger organizations, or organizations where the policy change is perceived as substantial, consider giving users plenty of time prior to deploying Print-Limit Pro throughout your organization.

#### ***End User Web Access Configuration***

You can tailor the end user Web interface to fit local requirements. Print-Limit Pro provides configuration options to conveniently hide or disable selected features. Take the time now to configure features applicable to your organization. For example if your organization does not intend to use PrintCards, you can remove the PrintCard link from your interface. Refer to the *Print-Limit Pro User Guide* for more information.

Technical staff with HTML experience may also choose to tailor the Web interface. Ideas include:

- Coordinating the page design with an existing Intranet site.
- Adding links to pages that explain the organization's IT policies and procedures.
- Adding instructional text to help users manage their accounts.

#### **TASK 9: Deploy the Client Software**

This task is undertaken by technical network staff and usually runs in parallel with testing. The User Inquiry Tool (UIT) is a client application that displays the user's account status at logon and is useful in a quota or charging environment. The client software is also used to display the Print Job Notification window for print jobs chargeable to shared accounts. Most organizations that deploy the print quota or payment modes use the client software.

Additional information on deploying the client software, including automated deployment methods are detailed in the *Print-Limit Pro User Guide*.

## TASK 10: Go Live

Installation and testing is complete. Administration staff is trained in user account management. And all users have been informed of the policy changes. You are now ready to go live with Print-Limit Pro. In a charging or quota environment this simply involves changing the users (or the selected sub-set of users) to restricted mode and applying their initial starting credit. You can do this as a bulk user action on the Group Member Operations page.

### Example:

Smithtown High School has completed testing, staff training, and all students are aware of the policy change. On the first day of this month the quota system will come into effect. Sally, the network administrator, uses the Group Member Operations page to apply the following policy:

Group	Starting Amount	Privilege	Group Rules
Junior Students	\$10.00	Restricted	Allocate an additional \$10.00 per month
Senior Students	\$15.00	Restricted	Allocate an additional \$15.00 per month
Teaching Staff	\$0.00	Unrestricted	Amount counts down from zero and is billed to faculty budgets in agreed proportions at the end of every semester.

## TASK 11: Completion

Print-Limit Pro controls and monitors your printing. Like other important programs and network infrastructure, technical staff should allocate time to check system health and perform maintenance. Print-Limit Pro is designed as a self-managing system, however we recommend you regularly monitor and back up your files.

### ***Suggested Daily Tasks:***

Using automated backup software, create a full backup of all files located under:

```
C:\Program Files\GenevaLogic\Print-Limit Pro\
```

This will ensure all Print-Limit Pro data files can be restored in the event of system failure or other unforeseen problems.

### ***Suggested Weekly Tasks:***

- Inspect the Print-Limit Pro Application Log for any important messages or errors.
- Inspect printer and user activity logs to ensure Print-Limit Pro records all activity.

### ***Suggested Monthly Tasks:***

- Check [www.genevalogic.com](http://www.genevalogic.com) for program updates.
- Review resource costs against any changes in toner costs, paper, and other print-related fees. Ensure users are informed if prices are to change.