

# Effective Classroom and Library Printer Management





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### INTRODUCTION

Printers are a fundamental part of the classroom and provide a practical means for both teacher and students to retain hard copies of coursework and projects undertaken during a lesson. However, the cost of printing within the classroom, while nominal per individual student, can quickly become quite significant across an entire student enrollment.

A number of solutions exist to provide schools with printer management capabilities. Most are standalone server-centric solutions which carry a significant cost to both implement and centrally maintain and have the prerequisite that each student is identified on the system with costs and quotas applied on a per user basis. CrossTec SchoolVue™ is unique in providing high level, flexible and affordable printer management as standard within its existing classroom management solution (at no additional cost!).

The screenshot displays the CrossTec SchoolVue interface for LAB-25. The top menu includes School, Client, Group, View, Print, Layout, Planner, Window, and Help. The toolbar contains icons for Refresh, Student Register, Journal, Show Menu, View Client, Scan, File Transfer, Send/Collect, Lock, Unlock, and Co-Browse. The main area shows a list of clients: FIREWALL1, LAB11, LAB-T21, RACK3-PDC, RACK5, SERVER2008, and WINDOW57. The bottom section features a Print Queue and a Printer List. The Print Queue table shows a job for FIREW... with status Paused, document Test P..., 0/1 pages, and printer HP 2500C 5... The Printer List table shows several printers with checkmarks, including Microsoft XPS Do..., Canon Bubble-Je..., Lexmark 2391 Plus, and HP 2500C Series ... The status bar at the bottom indicates 'Ready', 'Connections : 7', '7 Clients, 1 Selected', and 'All : 6'.

User	Status	Docu...	Pages	Printer
FIREW...	Paused	Test P...	0/1	HP 2500C 5...

Printer	Total Pa...	Total Print Jobs
Microsoft XPS Do...		
Canon Bubble-Je...		
Lexmark 2391 Plus		
HP 2500C Series ...		

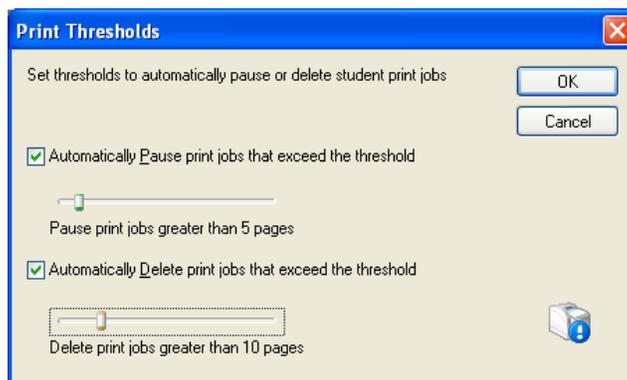


## MANAGING THE CLASSROOM PRINTERS

The printer management feature within CrossTec SchoolVue provides the teacher with total control over printer usage within a given classroom. Utilizing the software, a teacher can both monitor and control all printing activity “on the fly” during a lesson, as well as assign pre-defined limits based on acceptable use policies (see image below).

It is important at this point to clarify the differences between a high level print management solution such as that provided by CrossTec SchoolVue, and the other more granular, dedicated print management solutions available in the market. CrossTec SchoolVue does not require the pre-definition of student accounts, does not require a centralized server component and does not require quotas and cost limitations to be applied in advance of its use.

CrossTec SchoolVue provides the teacher with the ability to monitor all print activity within the classroom, covering all printers assigned to student computers. As a print job is initiated by a student, this is displayed within CrossTec SchoolVue on the teacher’s computer. On completion a history of all print jobs and pages printed is retained to allow for class by class reporting. Naturally the ability to see which print jobs have been initiated is extremely useful but with teacher attention likely to be focused on the students in the class, the beauty of CrossTec SchoolVue printer management is in allowing the system to manage their activity without immediate teacher input.





The primary features included within CrossTec SchoolVue are:

1. Prevent students from adding or removing printers from their desktop PC.
2. Prevent all or selected students from printing.
3. Pause all student print queues - this will remain in force until the teacher releases either all or selected items.
4. Record a full print history for each student and the class to allow for subsequent reporting and costing where appropriate. This information can be both printed and exported in a range of formats.



The ability to disable printers as and when required is also increasingly important in shared resource areas of the school, such as the library, where potentially high volume non-curriculum based printing can occur, or where examination content is provided and it is critical to avoid copies leaving the classroom.

### **PRE-EMPTIVE PRINTER MANAGEMENT**

When a new lesson commences, utilizing CrossTec SchoolVue, a default printer status can be automatically applied to the entire class (this default can be unique to each class period or the same for all classes/teachers). A typical default would be to pause all printers at the onset of each class to avoid the risk of a teacher being distracted by other issues and omitting to apply printer enforcement. Otherwise, printer thresholds can be defined providing basic rules for the treatment of individual print jobs. For example, CrossTec SchoolVue can review each submitted print job and, based on a simple set of rules, can choose to pause any print job that exceeds a given number of pages, thereby leaving the document for review by the teacher prior to passing the print job on to the printer itself.

Applying the same rules, a print job beyond another defined number of pages can be automatically deleted by the system. In a



typical classroom project where the students have been asked to type two pages of text on a given subject, the system can be set to allow print jobs up to three pages in length, pause those up to five pages in length, and delete any that are of a larger size.

Finally, and one of our most popular features, CrossTec SchoolVue will check for over-enthusiastic students and where duplicate print jobs are submitted in close succession by a given student for the same document, these duplicated print jobs will be automatically deleted, saving valuable ink and paper.

## **CONCLUSION**

The cost of delivering printing in the modern classroom should not be underestimated. By providing either inkjet or laser printing capabilities and potentially the availability of color printing, the cost of both paper and consumables can quickly escalate. As an example, a school with 500 students, who each print on average no more than 5 pages of work each day, for each of their typical 180 school days per year, would generate printing costs to their school of \$27,000 each year, based at the industry-accepted cost per page for a black and white laser print of \$0.06 per sheet. This cost would be significantly higher for inkjet and color based content.

A product utilized correctly such as SchoolVue can conservatively reduce 25% of the overall pages printed, by removing duplicates and eliminating unnecessary or unauthorized document printing. Using the above example, this would result in an annual saving of \$6,750. With this feature alone, a school could conceivably "pay for" its SchoolVue software within the first two years of use.

For more information visit <http://www.crosstecsoftware.com> or contact us:

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