



Print Audit 6 Technical Overview

Print Audit 6 is the most accurate and powerful suite of print tracking and print management products available. It is used to analyze, reduce and recover costs along with the resources associated with printing and plotting to all networked, local, and direct to IP printers.

The Print Audit 6 suite is comprised of the following components:

Print Audit Analysis is an inexpensive tool that is used to collect print volume information on all printing devices. It allows companies to get an accurate picture of their print volumes utilizing Print Audit 6 Analysis' comprehensive reporting capabilities. This information can then be used to optimize their printing fleet.

Print Audit Rules allows enterprises to restrict color usage, enforce printing limits and redirect expensive print jobs to the most efficient printing device.

Print Audit Recovery allows organizations to accurately bill their clients or users for their printing and copying costs. Recovery automates every step of the chargeback process. Its bullet-proof security and unique capture method ensures that 100% of printing and plotting costs are recaptured.

These three components can be purchased a variety of configurations depending on the needs of your organization.

TECHNOLOGY

Print Audit 6 uses a client-based architecture. This has an important advantage over server-based tracking systems in that it allows tracking of all local as well as network printing by printer port and IP address identification, without utilizing valuable network bandwidth. Another equally important advantage is that the Print Audit system is safe and easy to install, without any alteration of the existing network whatsoever.

SYSTEM REQUIREMENTS

Operating System requirements

Print Audit Database Communicator, database and Administrative tools:

- Windows 2000, Windows Server 2003, Windows XP, Windows Vista and Windows Server 2008, Windows 7.



Print Audit Client:

- Windows 98, Windows ME, Windows 2000, Windows Server 2003, Windows XP, Windows Vista, Windows Server 2008, Windows 7, Mac OS X 10.5 or newer.

Print Audit 6's CPU and RAM requirements are the same as those of the operating system Print Audit 6 is running on.

Networking requirements

- TCP/IP networking (by default, port 17520 is used for communication between the Database Communicator and the Client)
- Print Audit does not create any network traffic until a print job is initiated.
- Once a print job has been sent to the printer, Print Audit will create 10 to 20 KB of bidirectional network traffic per print job regardless of the print job size.

Print Audit Memory Usage / Network Traffic

Print Audit Installation Requirements

- The Print Audit full installation, including the Database Communicator and the database will require approximately 60 MB of disk space.
- The Print Audit full installation, NOT including the Database Communicator and the database will require approximately 50 MB of disk space.
- When using a deployment method such as logon scripts or Active Directory to deploy components to workstations, only the components you choose to install with the installation wizard will be copied to each workstation. The hard drive space used is dependent on which components are installed.

NOTE: The total amount of disk space used is dependent on the method that you use to do the actual installation. The figures stated above are estimates as JET or MDAC may need to be installed as well.

- When using a deployment method, the network traffic created during the installation will be between 3 and 60 MB's per workstation, depending on the components you choose to install.



Print Audit Database Requirements

- Support for Access and SQL database back ends.
- The amount of disk space used by the database is dependent on the type of database back-end as well as the amount of data being tracked.
- Approximately 1MB of disk space per 2000 print jobs will be used.

Database Communicator Memory Usage

- The Database Communicator is a service and will use up to 10 MB of memory when running but decreases the longer it is in use. The amount of memory used decreases as certain components of the communicator are never used and eventually the memory for those components will be swapped out to other processes.

Client Installation Requirements and Memory Usage

- The Client will require approximately 2 MB of disk space.
- The Client will use approximately 1 MB of memory on the system and will increase to approximately 1.5 MB when tracking a print job.

TECHNICAL ADVANTAGES

Workstation-based

Print Audit 6 tracks from the workstation which enables it to track every print job. This also allows it to retrieve more information about each print job, such as the name of the program or the web site address. Also, tracking from the workstation, rather than the print server, requires less network bandwidth since port monitoring is not required to capture all locally connected and direct to IP devices.

Simple installation and setup

Print Audit 6 does not require any modification of the local network or print servers to track 100% of the printing activity. Print Audit 6 installs easily to each workstation from a central location on the network.

Tracks everything

Print Audit 6 is the only print tracking software solution that tracks all print devices out of the box. Whether a print job goes through a print server, directly to a printer with its own IP address or to a local printer, Print Audit 6 captures it. Print Audit 6 creates an inventory of all print devices in use on the network, regardless of whether those devices are known to exist by the network administrator.



Controls printing costs

Print Audit 6 Rules can either suggest or force users to print to a more efficient printer based on wide variety of factors such as the number of pages in the print job. Rules can control color costs by limiting color usage by the user, computer, printer, number of pages, application and much more. Print Audit 6 also helps organizations reduce their environmental impact by forcing users to print on both sides of the page.

Flexible reporting

Print Audit 6 includes two reporting tools that allow customers to decide on what data they would like to view. Users can design customized reports and export files according to the exact specifications required by their existing accounting and reporting systems.

All in one solution

Server-based solutions by their nature have to be broken up into various costly components that are needed to perform tasks, such as capturing, analyzing, and recovering costs. Organizations can take full advantage of Print Audit 6's cost analysis, reduction and recovery capabilities right out of the box.

INSTALLATION

Print Audit 6 provides a simple, easy to use system of configuration files and batch files to allow organizations to quickly rollout the software to their network. Print Audit 6 can be easily installed to thousands of workstations from a central location on the network using your existing deployment method such as Active Directory, login scripts, MSI Packages, or any mass installation tool.

Detailed installation and mass deployment guides can be found here:

[Print Audit 6 Technical Documents](#)

PRINT AUDIT 6 INSTALLED FILES

The following is a list of files Print Audit 6 installs. Some files in this list are duplicated as they can be installed with one or more of the Print Audit pieces. Note that system files are NEVER replaced if they are newer than the ones we install.

Administrator Files

Installed to [Install Dir]\admin

pa6admin.exe – Administrator executable
pa6admcm.dll – Administrator library



pa6dbmnt.exe – Database maintenance tool
pa6clist.exe – Client Status/Push Install tool
pa6intfc.exe – Support app for Client Status/Push tool
pa6jbmrq.exe – Job Merge Wizard

Installed to [Install Dir]\help

pa6admin.chm – Admin help file
pa6clist.chm – Client Status/Deployment Tool help file
pa6cpaud.chm – Copy Audit Numeric help file
pa6dbmnt.chm – Database Maintenance Tool help file.
pa6jbman.chm – Job Manager help file.
pa6jbmrq.chm – Job Merge Wizard help file.
pa6main.chm – Print Audit 6 help file.
pa6reprt.chm – Analysis Reporting help file.

Installed to [Install Dir]\admin\plugins

admappls.dll – Applications section plugin
admcafcg.dll – Copy Audit plugin
admfield.dll – Custom fields plugin
admgbst.dll – Global settings plugin
admnetwk.dll – Network settings plugin
admpaper.dll – Paper size plugin
admprint.dll – Printers plugin
admprpif.dll – Printer profiles plugin
admrules.dll – Rules plugin
admsetng.dll – General settings plugin
admusepf.dll – User profiles plugin
admusers.dll – Users plugin
pa6ivpa6.dll – Flat file value importer plugin

Installed to [system32]

IGTabs40.ocx – Third party “tabs” control library.
IGToolbars50.ocx – Third party “toolbars” control library.
PVOutlookBar.ocx – Third party “outlook frame” control library.
vsflex8.ocx – Third party “grid” control library
mscomctl.ocx – Microsoft common control library
mscomct2.ocx – Microsoft common control library
mswinsck.ocx - Microsoft Windows sockets support library

Job Manager Files

Installed to [Install Dir]\jbmanage

pa6jbman.exe – Job Manager executable
pa6jeflt.dll – Job exporter plugin
pa6expinf.dll – Job exporter interface.



Installed to [Install Dir]\help

pa6jbman.chm – Job manager help file.

Installed to [system32]

IGTabs40.ocx – Third party “tabs” control library.
IGToolbars50.ocx – Third party “toolbars” control library.
vsflex8.ocx – Third party “grid” control library
mscomctl.ocx – Microsoft common control library
mscomct2.ocx – Microsoft common control library
vsprint8.ocx – Third party printing library
vsrpt8.ocx – Third party reporting library
vspdf8.ocx - Third party PDF generation library.
chilkatMail_v7_9.dll - Third party email library.

Reporting Files

Installed to [Install Dir]\report

pa6reprt.exe – Analysis Reporting executable

Installed to [Install Dir]\report\reports

topvolprinters.rpt
topvolmodels.rpt
topvolcolorusers.rpt
topvolcolorprinters.rpt
topvolcolormodels.rpt
topvolbwusers.rpt
topvolbwprinters.rpt
topvolbwmodels.rpt
top10workpages.rpt
top10workjobs.rpt
top10userpages.rpt
top10userjobs.rpt
top10printpages.rpt
top10printjobs.rpt
printervolume.rpt
printeruserprinting.rpt
printerroi2.rpt
printerinventory.rpt
printercosts.rpt
printeraverages.rpt
peakprintergraph.rpt
pagevoluser.rpt
modelvolume.rpt
modelinventory.rpt
jobsizemodel.rpt
execsummary.rpt
colorpagevoluser.rpt



bwpagevoluser.rpt
avgpagesperhour.rpt
avgpagesperday.rpt
titlepage.prp
tbcontents.prp

Installed to [Install Dir]\help

pa6reprt.chm – Analysis Reporting help file.

Installed to [system32]

IGTabs40.ocx – Third party “tabs” control library.
IGToolbars50.ocx – Third party “toolbars” control library.
vsflex8.ocx – Third party “grid” control library
mscomctl.ocx – Microsoft common control library
mscomctl2.ocx – Microsoft common control library
vsprint8.ocx – Third party printing library
vsrpt8.ocx – Third party reporting library
Chart FX.ClientServer.Core.dll - Third party chart/graph library.
ChilkatMail_v7_9.dll - Third party email library
vspdf8.ocx - Third party PDF generation library.

Microsoft Libraries

Microsoft GDI+ library - Only installed on Windows 2000.

Client Files

Installed to [Install Dir]\client

pa6clint.exe – Client executable
pa6wtrak.dll – Windows tracking dll
pa6hook.dll – Windows tracking dll
pa6ccutl.exe – Client configuration tool

Installed to [Install Dir]\client\plugins

paac2000.arx – AutoCAD 2000/2000i plugin
paac2002.arx – AutoCAD 2002 plugin
paac2004.arx – AutoCAD 2004/2005 plugin
paac2006.arx – AutoCAD 2006 plugin
pa6ac07.arx – AutoCAD 2007 plugin
pa6ac10.arx - AutoCAD 2010 plugin
pa6mtrak.dll – Microstation support library
pa6mv71.ma – Microstation/J plugin
pa6mv8.ma – Microstation 8 plugin



Installed to [system32]

snmpapi.dll – Microsoft SNMP support library (Only installed on Win98 if not present)

Database Communicator Files

Installed to [Install Dir]\data

pa6clcom.exe – Database Communicator executable
pa6clcfg.exe – Database Communicator configuration tool

Copy Audit Numeric Files

Installed to [Install Dir]\cpaudit

pa6cacom.exe – Copy Audit Numeric communicator executable

Installed to [Install Dir]\admin\plugins

admcafcg.dll – Copy Audit Numeric administrator plugin

Installed to [Install Dir]\help

pa6cpaud.chm – Copy Audit Numeric help file

Installed to [system32]

mswinsck.ocx – Microsoft Windows sockets support library

Database Files

Installed only if you choose to create an Access database.

Installed to selected database directory:

pa6db.mdb – The Print Audit Access database.
pa6db.mdw – The Print Audit Access security file.

Common Files

These files are ALWAYS installed, regardless of what else is being installed.

Installed to [Install Dir]\common

pa6cminf.dll – Common interface library
pa6data.dll – Data communication library
pa6logvw.exe - Print Audit 6 log viewer
pa6utils.dll - General utility library
pa516cal.dll - 16-bit support library
pa532cal.dll - 32-bit support library



Installed to [system32]

msvcrt.dll – Microsoft common C runtime library

Data Access Layer/VB Support

These files are installed if you install the Administrator, Database Communicator, Copy Audit Communicator, Job Manager or Analysis Reporting Tool.

Installed to [Install Dir]\common

pa6data.dll – The Print Audit data access library.

Installed to [Install Dir]\help

pa6main.chm – Intro help file, links to all other help files.

Installed to [system 32]

comcat.dll – Microsoft VB/COM support library.
asycfilt.dll – Microsoft VB/COM support library.
oleaut32.dll – Microsoft VB/COM support library.
olepro32.dll – Microsoft VB/COM support library.
stdole2.tlb – Microsoft VB/COM support library.
advpack.dll – Microsoft VB/COM support library.
msvbvm60.dll – Microsoft VB runtime library.

Microsoft Libraries

MDAC 2.8 – Microsoft ADO library version 2.8
MSJet4 SP3 – Microsoft JET library, version 4 service pack 3.

PRINT AUDIT TOOLS

The Print Audit 6 suite consists of several tools. These tools help you install, configure and report on your print tracking. Please note that you may not be able to use all of the features and tools described depending on your licensing.

Client – The Print Audit Client tracks all printing from a user's desktop. You must install the Client on any computer from which you want to track printing. The Client can also gather custom information from your users at print time.

Database Communicator – The Database Communicator handles all communication between the Print Audit Client and the Print Audit database. You generally only need to install one Database Communicator in your organization.

Administrator – You use the Administrator tool to configure all aspects of Print Audit 6. You use it to setup printer profiles, user profiles and any custom field information. You also use the Administrator to configure printing limits and other Rules features.



Job Manager – You use the Job Manager to view, edit and delete your print job information. You can also use the job manager to report detailed job information and export your jobs to other tools.

Analysis Reporting – You use the Analysis Reporting tool to generate sophisticated reports that you can use to report on volumes and calculate ROI on your information.

Print Audit Database – The Print Audit Database stores all of your print job, user and printer information. You can use a Microsoft Access based database or Microsoft SQL Server. For larger organizations we highly recommend SQL Server.

Support Tools

Client Status/Deployment – You use this tool to monitor the status of Print Audit Clients on your network. You can also use the tool to deploy the client to Windows NT and above computers in your organization.

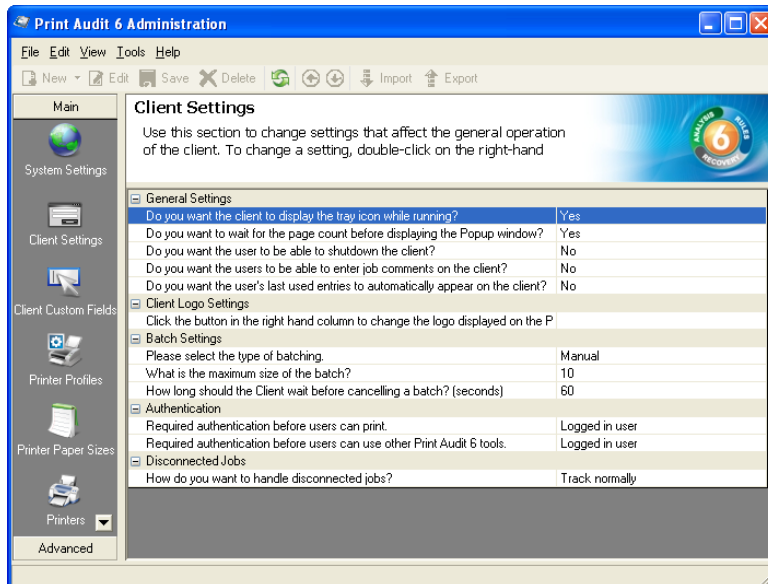
Job Merge Wizard – You can use this tool to merge jobs from one Print Audit database to another. For example you may have several satellite offices and want all of the information merged into a head office database.

Database Maintenance Tool – You can use this tool to create SQL databases, compact Access databases and change database passwords.

Data Migration Wizard – This tool allows you to upgrade Print Audit 5 databases to Print Audit 6 databases, as well as migrate Print Audit 6 Access databases to Microsoft's SQL Server.



ADMINISTRATOR



Once the installation of Print Audit 6 is complete, you use the Print Audit 6 Administrator tool to configure all aspects of Print Audit 6.

Print Audit 6 can be configured centrally from any workstation that has the Administrator module installed to it. Any changes to the programs configuration, made in the Administrator, are written to the central database and recognized network wide as each client (workstation) reads from, and writes to, that same database.

SECURITY

Print Audit 6 includes powerful security features that ensure the program cannot be overridden and that 100% of the print jobs are captured. The Print Audit Client can be configured so that even users with administrator rights cannot shut it down.

Click here to view the [Print Audit 6 – Security Overview](#) for more information.



REPORTING

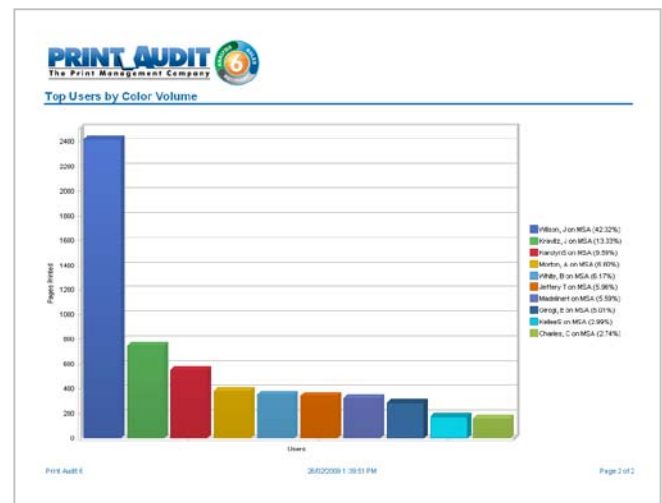
The full Print Audit 6 suite includes two reporting tools, known as the Job Manager and Analysis Reporting.

The Job Manager is used to view and manage detailed print job information. You can search for jobs using several different pieces of search criteria. Once you find the jobs you want you can edit the jobs, build reports based on the job details and export the job information.

You can also use the Job Manager to schedule exports of your job information to a file format that your accounting program can read.

The Analysis Reporting tool can be used to produce pre-prepared reports for your printing volumes and costs. You can use these reports to determine your highest volume printers, distribution of job sizes, percentage of color vs black and white printing, etc.

Analysis Reporting also allows you to create Composite Reports. These reports are a combination of several other reports with a title page and table of contents.





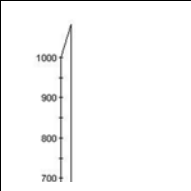
Print Audit 6 Features Sheet

Standard Features and Benefits	Analysis
<ul style="list-style-type: none"> • Easy enterprise wide installation to any number of machines. • Tracks 100% of printing, including local, networked, USB and direct to IP. • Network push-install tool. • Powerful security that ensures all jobs are tracked. • Support for SQL or Access back-ends. • Client-based architecture for low network overhead. • Does not require a print server. • Easy and secure configuration from any workstation. • Network integration with Windows NT, Active Directory and Novell Directory Services. • Scheduling/emailing of reports. 	<ul style="list-style-type: none"> • Tracks printing silently behind the scenes. • Contains a powerful volume analysis reporting tool that will help identify equipment inefficiencies and bottlenecks. • Tracks device port, duplex information, number of pages, number of copies, network user and much more. • Installs silently to tens, hundreds or thousands of workstations. • Automatic color and monochrome tracking at the page level. • Stores detailed information about every device that prints. • Automatically builds inventory lists of every user, printing device and computer.
Rules	Recovery
<ul style="list-style-type: none"> • Utilize printing limits with highly customizable pop-up messages to notify users of print job costs before they print and suggest lower cost alternatives. • Create advanced rules to limit printing based on conditions such as job cost, job size, the user, the application, time printed, color usage and much more. • Maintain document security and regulatory compliance by implementing rules that can prevent confidential documents from being printed or inform you when they are printed. • Redirect print jobs from high-cost to low-cost devices. • Control color usage based on the number of color pages in a job, the printer, the application being printed from, the user and the computer. • Encourage or force users to print on both sides of the page or with multiple pages on a sheet (N-up). • Override pricing with custom rules. 	<ul style="list-style-type: none"> • Optional job code validation through a user-friendly popup window. • 5 customizable fields that can be paired together for validation. • Create custom fields based on the printer or application. • Utilize user PIN codes for charging users. • Set declining balances based on cost, total pages, color pages, or black & white pages. • Specify devices and applications to track or not. • Job snoozing and job batching functionality. • Charge your customers or users by the page or by the paper size. • Export data into virtually all accounting systems. • Designed to work with all popular CAD systems. • Integrates seamlessly with Print Audit's Copy Audit and Embedded solutions.



Print Audit 6 Features Comparison

	Full Suite	Analysis & Rules	Analysis & Recovery	Analysis
TECHNICAL FEATURES				
Print tracking at:	PC	PC	PC	PC
Workstations supported	Client: Windows 98 and newer Administration tools: Windows 2000 and newer			
Novell Network Service Support	yes	yes	yes	yes
Active Directory Support	yes	yes	yes	yes
new Use Kerberos during Active Directory Authentication	yes	yes	yes	yes
Citrix Server Support	yes	yes	yes	yes
Centralized network deployment tool	yes	yes	yes	yes
Client status monitor	yes	yes	yes	yes
Centralized data collection	yes	yes	yes	yes
Centralized administration	yes	yes	yes	yes
Tracks network/local/LPT/Com/USB printing	yes	yes	yes	yes
Installation wizard	yes	yes	yes	yes
new Data Migration Wizard	yes	yes	yes	yes
new Schedule imports	yes	yes	yes	yes
new Track color and black & white at the page level	yes	yes	yes	yes
new Specify a client logo	yes	no	yes	no
new Track multiple page sizes in jobs	yes	yes	yes	yes
Specify applications, users and printers to track without popup	yes	yes	yes	yes
Specify applications, users and printers to track or ignore	yes	yes	yes	yes
SECURITY FEATURES				
Data encryption	yes	yes	yes	yes
User security profiles	yes	yes	yes	yes
(Individual) user tracking options	yes	yes	yes	yes
Document name tracking	yes	yes	yes	yes
new 'Create user' security level	yes	yes	yes	yes
new Optional dual authentication system	yes	yes	yes	yes
REPORTING FEATURES				
Print job level reporting tool (Job Manager)	yes	yes	yes	yes
Print volume reporting tool (Analysis Reporting)	yes	yes	yes	yes
new Use custom logo on Job Manager reports	yes	yes	yes	yes
new Use custom logo on Analysis Reporting reports	yes	yes	yes	yes
new Scheduling/emailing of reports	yes	yes	yes	yes
Job editing and deleting	yes	yes	yes	yes
new Include users and printers in multiple groups	yes	yes	yes	yes
PRICING FEATURES				
new Pricing at user, application and printer level	yes	yes	yes	yes
Track cost by user defined paper size	yes	yes	yes	yes
Track cost by square meter	yes	yes	yes	yes
new Track print jobs in linear feet and per square inch	yes	yes	yes	yes
new Override pricing with customer rules	yes	yes	no	no
new Pricing based on job-type	yes	yes	yes	yes
new Black & white and color 'per paper size pricing'	yes	yes	yes	yes
new Customizable decimal place setting	yes	yes	yes	yes
Cost modifiers	yes	yes	yes	yes



	Full Suite	Analysis & Rules	Analysis & Recovery	Analysis
ANALYSIS FEATURES				
Automatic user, printer and computer inventory	yes	yes	yes	yes
Track duplex printing	yes	yes	yes	yes
Store detailed information about device that prints	yes	yes	yes	yes
Silent print tracking	yes	yes	yes	yes
Print job by print job breakdown	yes	yes	yes	yes
RULES FEATURES				
Active print job redirection tools	yes	yes	no	no
Specify maximum pages per print job based on the printer, user or application.	yes	yes	no	no
Soft and hard printing limits	yes	yes	no	no
new Advanced printing rules; create limits based on:	yes	yes	no	no
new Job cost	yes	yes	no	no
new Who printed	yes	yes	no	no
new The computer	yes	yes	no	no
new Application	yes	yes	no	no
new Number of copies	yes	yes	no	no
new Time printed	yes	yes	no	no
new The printer	yes	yes	no	no
new If job was printed to file	yes	yes	no	no
new Number of color pages in a job	yes	yes	no	no
new Whether the job contains color	yes	yes	no	no
new Job size (pages, sq. meters, sq. feet)	yes	yes	no	no
new Force users to print multi-page documents on 1 sheet	yes	yes	no	no
Force duplex printing	yes	yes	no	no
new Restrict printing based on document title	yes	yes	no	no
new Trigger emails based on rules	yes	yes	no	no
new Limit color usage based by computer, application, user, printer and more	yes	yes	no	no
new Insert variables into printing limit messages	yes	yes	no	no
'Disallow printing' option	yes	yes	yes	no
RECOVERY FEATURES				
Popup on workstation for billing information entry	yes	no	yes	no
new Declining balances based on cost, total pages, total color or mono pages	yes	no	yes	no
Up to 5 custom input fields	yes	no	yes	no
new Linked custom fields	yes	no	yes	no
new Choose which custom fields are required based on application, printer or user	yes	no	yes	no
User may override costs (if permitted)	yes	no	yes	no
Interface to accounting systems	yes	no	yes	no
Job batching	yes	no	yes	no
Job snoozing	yes	no	yes	no
Add validated codes on the fly	yes	no	yes	no
CAD plug-ins	yes	no	yes	no
new The ability to use non-validated custom fields	yes	no	yes	no
User PIN codes	yes	yes	yes	yes
Integration with Copy Audit Numeric and Touch	yes	yes	yes	yes