



smart

**enhance your total
printing experience**



hp smart print supplies





monitor

supplies status information

supplies status sensing

Supplies status sensing is enabled by the constant exchange of information between HP's new smart chip technology and sensors within the printer. These new computer-monitored hardware sensors in HP smart print cartridges allow for a more precise measurement of toner usage and other supplies levels. Users or administrators must access the printer's web-based supplies status page to view detailed supplies status information. The printer can be configured such that designated users or administrators receive e-mail alerts that can even be forwarded to a mobile phone when a supply level reaches a certain condition. These configuration steps are addressed in the printer User Guide.

print job assessment

Print job assessment provides an estimation of the pages remaining in the print cartridge. Users may then determine if their print job can be completed using information found on the printer's web-based supplies status page. This information is available due to the interaction between printer electronics and HP's new smart chip technology inside the print cartridge. The printer tracks key data such as total pages printed and coverage per page, then compares this data with historical toner usage levels.

cartridge usage data tracking

Cartridge usage data is another function enabled by HP smart chip technology. This usage information provides detailed data on the number of pages printed and enables businesses to precisely track print cartridge usage patterns and accurately evaluate their printing environment to support purchase decisions and increase business process efficiency.

benefits:

- **increased user productivity**
less user interaction, less time spent on user maintenance
- **less supplies waste**
no surprises on incomplete print jobs due to toner or paper outages
- **minimal printer downtime**
real-time access on supplies status information from your computer
predictable control of supplies levels

benefits:

- **eliminate waste of incomplete jobs**
- **avoid paper or toner outages**
- **highest possible document quality – no faded pages**
- **increased user productivity**
proactively plan print jobs,
determine if enough toner is left

benefits:

- **improved printer configuration**
- **improved printer usage tracking for better load balancing between printers**



precise

print quality enhancements

dynamic electro-photographic adjustments

Dynamic electro-photographic adjustments are enabled by HP's new smart chip technology and work by adjusting the electro-photographic voltages of the print cartridge throughout the stages of its life. Upon cartridge installation, the embedded smart chip stores information about the initial sensitivity of the drum so the printer can then more accurately adjust minor fluctuations in the sensitivity of the photosensitive drum.

benefits:

- **crisp and clear output from the first page to the last due to even particle distribution**
- **increased supplies efficiency**

shake-free cartridges

Design changes in new HP smart print supplies ensure full depletion of toner, eliminating the need to manually shake the cartridge at the end of cartridge life. After shaking the cartridge at installation it will no longer require manual interaction. New cylindrically shaped hoppers and an improved stirring mechanism now eliminate packing and accumulating of toner in areas where it will not reach the development area.

benefits:

- **reduced user interaction**
- **enhanced and consistent print quality to the last page**
no more faded pages at the end of the cartridge life
- **minimised printer downtime**
- **increased supplies performance**

installation and usability improvement

automatic seal tab removal

On selected HP smart print cartridges, the toner-sealing strip is automatically removed when the cartridge is installed. A sensor in the printer engages the printer driver motor to cycle in reverse to roll up the toner-sealing strip.

benefits:

- **more convenient for users and administrators**
- **clean and easy installation and replacement**

cartridge installation assurance

In selected HP smart print cartridges, cartridge and printer sensors relay digital information to help ensure proper installation and compatibility of the print cartridge with the printer. If the cartridge is installed incorrectly, a message is displayed on the printer control panel. This ensures that you are using exactly the cartridge that was designed to work with your printer. Only HP supplies guarantee superior HP print quality.

benefits:

- **installation confidence**
- **assured compatibility of supplies with printers**
- **superior hp print quality**



simple

internet enabled supplies ordering

E-services are another exciting category of print technology enhancements from HP. Similar to the way HP has revolutionised network printer management, the new HP e-services will use the internet to create an infrastructure that gives HP customers new ways of conducting business. Internet enabled supplies ordering is one of the first HP printing e-services to become available.

Internet enabled supplies ordering streamlines supplies management and delivers the correct supply at exactly the right time. Due to the continuous interaction of computer-monitored sensors and printer electronics, HP printers automatically predict when supplies will be depleted. Then they send a message to designated users or administrators to have the item replaced. The alerts direct users or administrators to the printer's embedded web server page where they can order new supplies using an internet link. For parallel-connected printers, prompts are sent through a printer driver. Detailed configuration steps are covered in the Embedded Web Server User Guide.

The internet enabled supplies ordering feature will be available in Europe starting in autumn 2001 in selected countries. It will be rolled out across Western-Europe during 2001 and 2002. To find out more about the status of this feature in your country contact your local HP sales representative.

benefits:

- **more efficient supplies inventory management**
- **order correct supplies exactly when needed**
- **streamlined intuitive ordering process**



**work
together**

designed together to work together

HP smart print supplies are the latest technological innovation in printing supplies from HP. These intelligent supplies are specifically designed with their respective printer and software. They work together as a system to make it easier for users to maintain superior HP print quality, while improving productivity and reducing the effort required to manage the supplies ordering and replacement process.

HP smart print supplies are smart because sensor enhancements, computer chips and chip readers have been added to several of the most popular HP LaserJet print cartridges starting with the mid-range and high-end LaserJet printers in Autumn 2000. The intelligent smart chips constantly send information back-and-forth between the printer and the cartridge. In the same way any team relies on good communication to get the job done, you can now depend on the interaction between the printer and the cartridge.

Depending on the specific printer models and their configuration scenarios, HP smart print supplies include features that offer:

- **supply status notification**
- **enhanced print quality**
- **easier cartridge installation**
- **simplification of supplies ordering**



hp smart print supplies feature availability by printer

HP smart print supplies are the latest technological innovation in printing supplies from HP. These intelligent supplies are specifically designed with their respective printer. Depending on the specific printer models and their configuration scenarios, different features are available:

feature	compatible printers	compatible print cartridges
supplies status sensing - parallel connected (bidirectional)	hp LaserJet 4100*	C8061A, C8061X
	hp color LaserJet 4550*	C4191A-C4198A
- network connected	hp LaserJet 8150*	C4182X
	hp LaserJet 9000*	C8543X
	hp LaserJet 4100	C8061A, C8061X
	hp color LaserJet 4550	C4191A-C4198A
	hp LaserJet 8150	C4182X
	hp LaserJet 9000	C8543X
	* driver update may be required	
	print job assessment	hp LaserJet 4100 hp LaserJet 9000
cartridge usage data	hp LaserJet 4100 hp LaserJet 9000	C8061A, C8061X C8543X
internet enabled supplies ordering - parallel connected (bidirectional)	hp LaserJet 4100*	C8061A, C8061X
	hp color LaserJet 4550*	C4191A-C4198A
- network connected	hp LaserJet 8150*	C4182X
	hp LaserJet 9000*	C8543X
	hp LaserJet 4100	C8061A, C8061X
	hp color LaserJet 4550	C4191A-C4198A
	hp LaserJet 8150	C4182X
	hp LaserJet 9000	C8543X
	* driver update may be required	
dynamic electrophotographic adjustments	hp LaserJet 4100 hp LaserJet 9000	C8061A, C8061X C8543X
shake-free cartridge	hp LaserJet 4100 hp color LaserJet 4550 hp LaserJet 9000	C8061A, C8061X C4191A-C4194A C8543X
automatic seal-tab removal	hp LaserJet 9000	C8543X
cartridge installation assurance	hp LaserJet 4100 hp LaserJet 9000	C8061A, C8061X C8543X