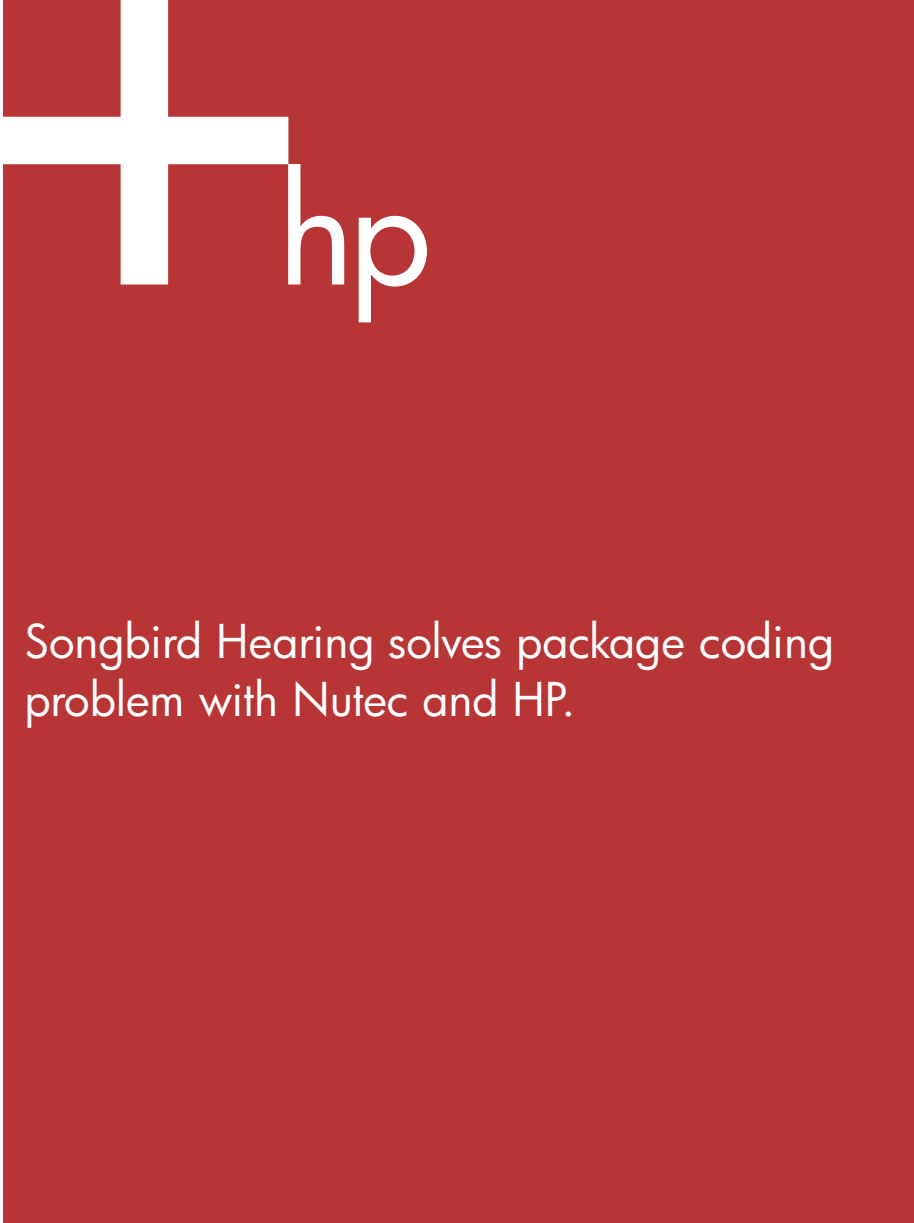
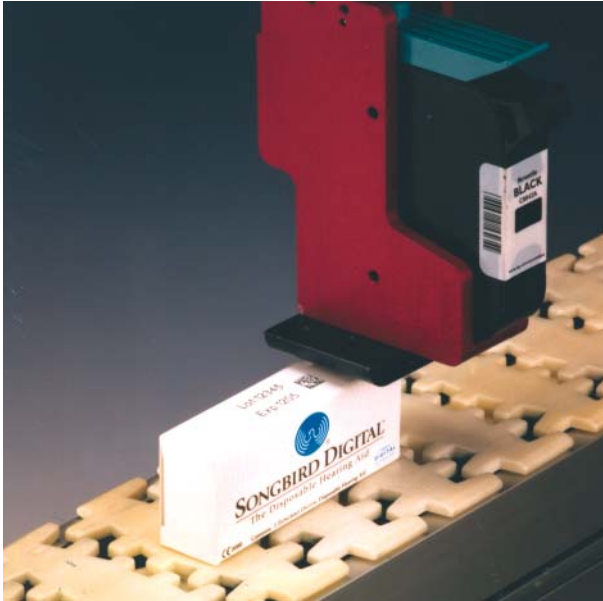


# A sound relationship

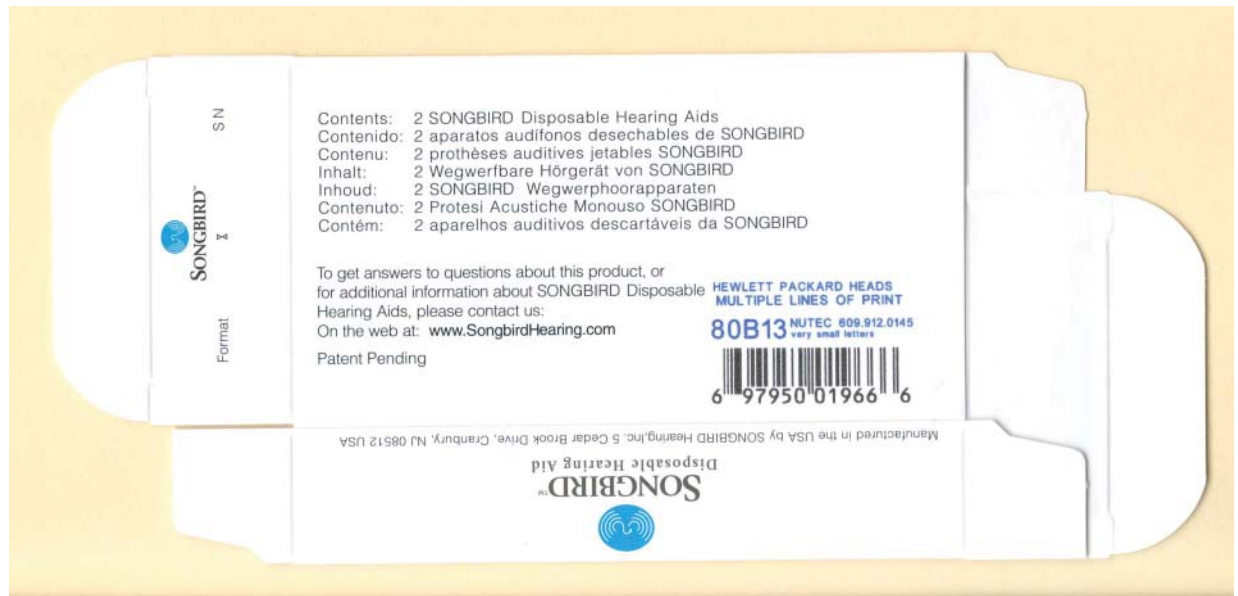


Songbird Hearing solves package coding problem with Nutec and HP.

Nutec's Wolke m600 product coding printer featuring HP inkjet technology



Songbird uses HP inkjet technology to deliver high-quality variable data package coding



From its first day of operation in 1997, Songbird Hearing had a reputation to uphold. A startup based in Cranbury, New Jersey, Songbird was spun off from Sarnoff Corporation (formerly RCA Laboratories), the scientific brain trust responsible for such breakthroughs as television camera technology and liquid crystal displays.

Songbird's charge was to develop a line of disposable hearing aids based on Sarnoff's proprietary technologies. In 2000, Songbird introduced its first disposable hearing aids and, in 2001, added a disposable digital product. The disposable devices have high-quality acoustics equal to those of traditional hearing aids but are more convenient and more affordable, says Michael Tardugno, Songbird's executive vice president for operations.

The product has the potential to revolutionize the hearing aid market and vastly improve life for the millions of people with hearing loss, Tardugno says. And Songbird has the market to itself. "Songbird is the only hearing aid in the world designed to be worn for a limited lifetime and then replaced," he says.

## The right look with thermal inkjet

With a unique product, a sterling pedigree and a huge untapped market, Songbird pays careful attention to its brand image. The packaging must project the product's high quality. Every aspect of the packaging matters, not just the elegant three-color logo on its glossy white background but also the "fine print"—the required variable data on the bottom. That includes the lot number, expiration date, bar code and format (nine formats meet different needs).

Songbird outsources the package graphics and then applies the variable data in-house. Initially the company tried continuous inkjet coding. But when the first packages came off the line, Tardugno wasn't pleased with the look

of the variable data. Seeking better results, he turned to Hewlett-Packard's thermal inkjet technology.

"As soon as we realized our existing equipment was really 'underspecced' for what we wanted, I asked our engineers to find an HP solution," says Tardugno, who was familiar with HP from two decades in manufacturing with pharmaceutical companies.

**"We were looking for something that was pharmaceutically elegant and very reliable, and HP printers are very reliable."**

Michael Tardugno

Songbird's executive vice president for operations

Two other factors also were critical: readability of the data and ease of operating the printer. "The information we supply to audiologists and consumers is very important to the hearing aid," Tardugno says. "They need to recognize the lot number, and they absolutely need to recognize the expiration date and format." In addition, the company's manufacturing employees—many of them having recently immigrated to the United States and speaking English as a second language—had to be able to use the equipment intuitively. "We needed something easy to use, very simple, very understandable and almost foolproof," he says.

Songbird's engineers did not have to look far for an HP solution. Nutec Systems, in Lawrenceville, New Jersey, was practically in their backyard. Nutec distributes the m600 product coding printer made in Germany by Wolke.

"I am nothing but satisfied. It's very reliable, takes virtually no maintenance, there are no mixups and no problems training employees to use it. It delivers on all its promises."

Michael Tardugno

Songbird is the only hearing aid in the world designed to be worn for a limited lifetime and then replaced.

The m600 answered all of Songbird's requirements. It is as easy to use as an office printer but fast and durable enough to print on packages moving down a conveyor belt. Capable of printing at 600 dpi, the m600, using HP thermal inkjet technology, can print bar codes superior in quality to continuous inkjet. The entire printing technology is located in HP's snap-in cartridge. Because there are no moving parts, no training is required to use the printer. The low cost of ownership helps Songbird control the cost of the disposable hearing aids. As a bonus, the water-based inks are environmentally friendly.

"The key to the system is the maintenance-free aspect of the HP printer," says Mike Shaw, vice president of sales for Nutec. "That's what makes the m600 unique."

Songbird's application of high-quality variable data to packaging is exactly what the m600 is designed for. Nutec customized the solution in just one regard. "We designed a conveyor system that would convey the boxes," Shaw explains.

Songbird has been using the m600 for three years now. "I am nothing but satisfied," Tardugno says. "It's very reliable, takes virtually no maintenance, there are no mixups and no problems training employees to use it. It delivers on all its promises."

## Reaching out to consumers

The relationship has been a win-win all around. HP's collaboration with manufacturers and distributors, such as Wolke and Nutec, helps ensure that customers like Songbird get the print quality they need to meet their package coding needs. "A company that may spend millions of dollars on graphic arts on its packaging does not want ugly-looking bar codes, dates and lot codes,"

### Disposable Songbird hearing aid



says Homayoun Akhbari, strategic OEM alliance manager with HP's Specialty Printing Systems.

As Songbird expands to reach more consumers directly, its image is more important than ever. Initially, the company sold in the United States mainly through private-

# “Building public awareness and building consumer loyalty takes time.” Michael Tardugno

Eight of 10 people who could use a hearing aid don't own one.

practice audiologists. In the United Kingdom, it sells through professional hearing-care centers operated in booths in retail stores. In late 2003, Songbird introduced its first U.S. over-the-counter product, the Songbird 400 Hour digital hearing aid.

“Hearing aids for the most part require a lot of encouragement for consumers to accept the notion that they have a hearing loss and a hearing aid can improve their lives,” Tardugno says. “Building public awareness and building consumer loyalty takes time.”

Although the privately held company doesn't provide sales figures, it does offer a glimpse of its potential. Songbird says that 31 million North Americans have hearing loss, yet only about 5 million wear hearing aids. Others just live with the problem, forgoing traditional hearing aids either because they cost too much (up to \$3,000 apiece) or require too much effort (batteries need to be replaced every few weeks). “Eight of 10 people who could use a hearing aid don't own one,” Tardugno says.

Songbird's professionally dispensed digital hearing aids cost well under \$100 and last up to 120 days. There is no need to change batteries, and their acoustics, compared to traditional hearing aids, are “every bit as good electronically, and in many cases better,” he says.

Songbird's digital hearing aids last up to 120 days



Nutec made a fortuitous match between Songbird and HP. The two companies not only take pride in their respective reputations for superior, cost-effective products but also have something else in common: a history of innovation. “HP is such an inventive company,” Akhbari says, “and here is another inventive company that has adopted our technology.”

For more information about HP Specialty Printing Systems and our partners in digital package coding, please visit us at [www.hp.com/oeminkjet](http://www.hp.com/oeminkjet)

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