Corporate Art Force, which provides art procurement and installation services to U.S. and Canadian companies, is using EPC UHF tags and readers to track paintings and sculptures that its clients display at their worksites.

By Claire Swedberg

Feb. 1, 2012—Many companies and organizations display works of art at their worksite, for employees and visitors to enjoy. Some, for example, may hang hundreds of paintings at dozens of office buildings worldwide, each piece of art having its own monetary value. Corporate Art Force (CAF), which provides artwork procurement and installation services to businesses throughout 42 U.S. states, as well as in Canada, has launched a program known as SmartArt, intended to help companies track their art using radio frequency identification. This year, CAF has begun tagging every work of art that it receives and then sells to corporations. The firm utilizes tag-read data to store its own records of which items were sent to which locations, and offers a service to customers enabling them to track the paintings on their own sites as well.

For companies acquiring and displaying works of art, CAF reports, the tracking of these pieces can be nearly impossible. With hundreds or thousands of paintings, prints or sculptures, an organization can lose track of what it has in inventory, and where each artwork item is located. A firm's staff can remove a painting from a wall and read the identification on its back, or ask a business such as CAF to help with that process. In either case, the time required for such an undertaking can stretch into days or weeks.

CAF is attaching an RFID label to the back or bottom of each painting or sculpture.

CAF has opted to offer a more efficient inventory solution, says William Kieger, the firm's president, by attaching an ultrahigh-frequency (UHF) EPC Gen 2 passive RFID tag to each piece of art that it sells, and utilizing handheld readers to interrogate the tags, as well as software to manage the location and maintenance performed for each artwork. The RFID solution, including software and readers, is provided by SimplyRFID.

"Art is an asset," Krieger states, "and being able to track where that artwork is has great value." He describes a client that owned more than 3,000 pieces of artwork in its inventory, but did not know where

each item was located.

 Corporate Art Force is attaching a label containing an Avery Dennison AD-223 RFID inlay to the back or bottom of each painting or sculpture. When CAF receives a work of art from an artist, data regarding that item, such as its size, description, title and approximate value, along with the artist's name, is entered into SimplyRFID's NoxVault software, which interprets read data and enables users to pair the tag's ID number with a location they have input, and also sorts that data. Information can then be integrated with a user's existing inventory-management system, such as one utilizing Microsoft's Excel spreadsheet software. The CAF employee then reads the ID of the tag attached to the painting, using a NoxVault handheld reader, and that information is linked with the art piece's description. When artwork is delivered to a customer, a CAF worker reads each item's ID number. NoxVault software installed on the handheld unit displays a description of the artwork that corresponds to that tag ID number, and the CAF employee can then confirm that the proper piece of art is being delivered to the correct customer, and also create a record of that delivery.

Customers can choose whether or not to opt into the SmartArt program. While CAF is attaching RFID tags to all new artwork that it sells, the company can also provide tags onsite to its existing customers, to be attached to their art collections, as well as supply NoxVault handheld readers. If a customer requests the SmartArt service, it would then pay a subscription fee. When conducting scheduled or requested inventory counts, or cleaning the artwork, a CAF worker would first read each item's tag by holding the handheld near the painting, without removing it from the wall, within a range of approximately 20 feet or less. The reader would then display the artwork's description and maintenance history, such as the dates it had been cleaned. Although the reader can transmit data to a back-end server via a Wi-Fi or GSM connection, CAF's staff can simply store the information on the device, and then plug it into a PC or laptop at the end of the day in order to download the read data, where it can then be integrated with Excel to create a spreadsheet for the customer, itemizing the artwork and its location and maintenance histories.
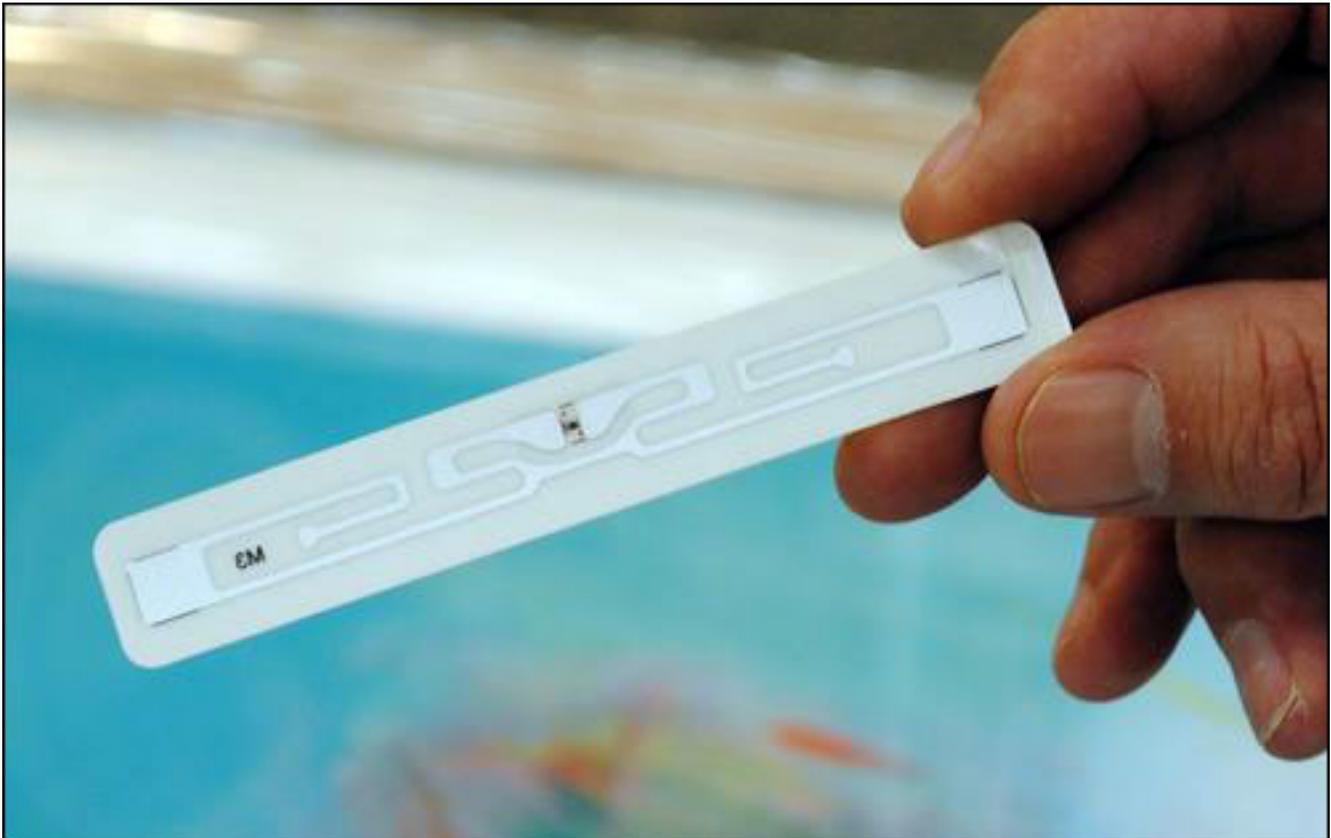
On the reverse side of each label is an Avery Dennison AD-223 passive UHF EPC Gen 2 RFID inlay.

Prior to the creation of the SmartArt program, SimplyRFID and CAF discussed their hardware options, including using UHF technology or an alternative, such as a high-frequency (HF) solution. "We talked about what the best solution is for tracking art," says Carl Brown, SimplyRFID's president. "UHF gives them a long read range—20 feet—and a read rate of more than 100 tags per second. This makes inventories fast, and helps ensure the correct art is loaded for delivery." Moreover, he adds, "When at a customer's site, art can be counted quickly and accurately."

The SmartArt program is currently being piloted by a Minneapolis-area Fortune 500 business, according to Kieger, who declines to reveal that company's identity.

Since its launch in 2009, Corporate Art Force has developed a network of more than 1,000 artists, whose work the company provides to about 100 clients nationwide. To date, CAF has installed 13,000 pieces of artwork for those customers.

William Kieger, Corporate

Art Force's president

The tags not only enable customers to maintain updated inventory records of their artwork, but can also be used to deter theft. Although the system is initially focusing on inventory management, Brown notes that the technology can also be employed in tandem with a security or surveillance system, with the installation of fixed RFID readers. For example, if an interrogator were installed within a doorway, it could capture an event—such as an individual carrying a piece of art out of the building—and the system would then trigger a video camera to record that event, or to issue an alert to facility managers via e-mail or text message. Initially, Kieger says, his own customers are interested only in inventory management.

"SmartArt is really ahead of the curve," Brown states, since few other art dealers offer customers an RFID-based solution.

As an alternative to providing the SmartArt maintenance and inventory service with RFID, CAF also offers the option of loaning a NoxVault reader to a company, so that it can conduct inventory checks itself. The SmartArt program is provided for a monthly fee, or according to other pre-arranged pricing plans. According to Kieger, the firm expects to have between 10 and 12 SmartArt customers from existing clients during the next 30 days.