Industrial standard barcodes on Tray Packaging

Application Focus: Replace manual entry low-resolution coders such as valve printers and roller coders with the sophisticated and easy to use Marksman Pro controller with the capability of printing industry standard barcode directly to the case.

Target SICs:

Canned Specialties	2032
Canned Fruit/Jams/Jellies	2033
Dog and Cat Food	2047
Canned and Cured Seafood	2091

Target Customers:

Canning Manufacturers using tray packs

Key Benefits

- Produce Industrial standard, verifiable barcodes directly on tray packs.
- Retain low per box coding costs with a higher quality and more legible code.
- Quickly and easily change print formats utilizing the Scan and Shoot Process.

Application Brief: In the past, canning facilities were simply required to place product information as well as variable date and time information. End-users of these products such as distribution centers are now requiring the addition of a shipping barcode to be placed on the cartons to correctly sort in an automated receiving system. To accomplish this, pairing a Marksman Pro controller with a ProSeries 192 printhead, the customer is able to code required human readable information along with an industry standard barcode that is 99.9% decodable. No modification to the production line machinery is necessary as the ProSeries 192 printhead can be fitted with a special nosepiece and modular ink system to fit into the tight quarters that are required on tray packing machinery.

Equipment List:

Before

MANUAL LOW RESOLUTION CODER

After

FoxJet Marksman Pro Case Coding System featuring the ProSeries 192 printhead

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Application Analysis

Customer: Large nationwide vegetable canning facility.

Customer Goals: 1. Add industrial standard barcode to existing print format
2. Simplify batch changeover process
3. Maintain low box coding costs

Customer's Current Carton Coding Process: The current coding equipment that the bottler uses is a low-resolution valve inkjet system. As the system is limited in its variable coding capabilities, the operators must manually key in much of the data that is printed on the tray pack. Because the customer utilizes a britepack canning process producing small batches, this human interface with the controller is time consuming and in some instances results in keystroke and other errors. In addition, evolving standards in the industry require the application of barcodes on each case shipped. Valve printers do not have the capability of printing these barcodes.

Example of Customer's Current Label Layouts (does not include barcode now required):

675842 DEC 01 2005

*Not e 675842 is t he Pr oduct Number
    DEC 01 2005 is t he dat e of canning*

Proposed System: Utilizing the Marksman Pro controller and the ProSeries 192 printhead, the customer will print both the human readable information as well as the industry standard barcode in a single pass without the modification of any existing machinery. The advanced task creation software will allow the user to input all formats before the production run to simplify batch changeover time. In order to "call-up" these formats for printing, the line operator will use a PSC hand scanner and simply scan a barcode on the individual vegetable can. The Marksman Pro will receive and start the corresponding task for printing on the Marksman Pro controller. The ProSeries 192 printhead with the modular kit option will enable the customer to add the printhead to their existing tight-quarters production line without any modification to their canning machinery.

Installation Details

Installation Brief: After removing the existing valve coders, the customer installed ten full systems as documented below. Each line took approximately 6-8 hours to install and train line workers to operate and maintain. In addition, the production line supervisor, who is responsible for all message design, spent a few hours with the distributor technician learning how to create, edit and otherwise manage the message database.

Equipment Layout:

See Figure on Right (Note Modular Units not shown)
1. Marksman Pro Controller
2. ProSeries 192 Printhead   Qty. 2
3. Canning System*
4. Can Tray Pack*
5. Bracketry System   Qty. 2
6. Encoder
7. Ink Bottle   Qty. 2
8. Photosenser
9. APS Waste Collection Bottle   Qty. 2
10. Encoder Cable
11. Strobe Beacon
12. APS Data Cable   Qty. 2
13. Printhead Data Cable   Qty. 2

Not Shown
1. Modular Printhead Kit   Qty. 2
2. PSC PowerScan Scanner
3. Controller Power Cable

*Customer Supplied Equipment
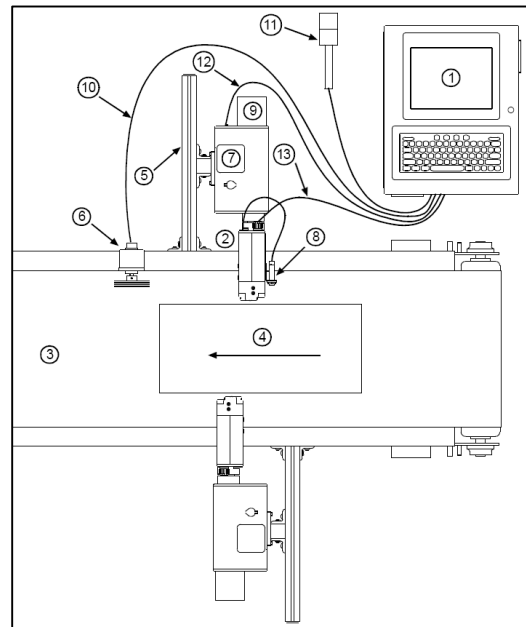
Total System Cost: $20,000 including one day installation and training labor.
(Per Line)

Goal Analysis:

1. After the Marksman system was installed, the customer instigated a barcode verification sampling process. Over a period of three months, barcode decodability proved to be at levels higher than 99% satisfying the requirements of the customer.

2. Batch changeover time was dramatically reduced involving almost no line operator attention to setup the next code for printing. The line operator need only scan the individual vegetable can's UPC code to start the corresponding tray pack code for printing.

3. Although the high resolution coding solution turned out to be slightly higher than the valve counterparts averaging around $.006 per box. During the quoting phase, the customer found that competing technologies such as labels could average as high as $.05 per box.

CANNED GREEN BEANS
12-16 OZ CANS
075842   DEC 01 2005

0 00 32246 75842 1
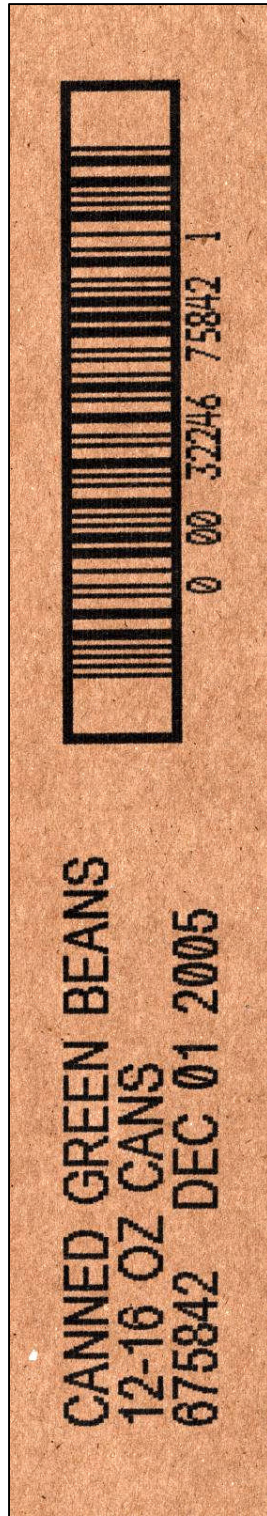
Reformatted code produced with the ProSeries 192 printhead

Standard Industrial Classification Code

2032: Canned Specialties

SIC Code Description:

Establishments primarily engaged in canning specialty products, such as baby foods, nationality specialty foods, and soups, except seafood. Establishments primarily engaged in canning seafoods are classified in Industry 2091.

Product Examples:

Baby foods (including meats), canned
Bean sprouts, canned
Beans, baked: with or without meat-canned
Broth, except seafood: canned
Chicken broth and soup, canned
Chili con carne, canned
Chinese foods, canned
Chop suey, canned
Chow mein, canned
Enchiladas, canned
Food specialties, canned
Italian foods, canned
Macaroni, canned

Mexican foods, canned
Mincemeat, canned
Nationality specialty foods, canned
Native foods, canned
Pasta, canned
Puddings, except meat: canned
Ravioli, canned
Soups, except seafood: canned
Spaghetti, canned
Spanish foods, canned
Tamales, canned
Tortillas, canned

2033: Canned Fruits, Vegetables, Preserves, Jams, and Jellies

SIC Code Description:

Establishments primarily engaged in canning fruits, vegetables, and fruit and vegetable juices; and in manufacturing catsup and similar tomato sauces, or natural and imitation preserves, jams, and jellies. Establishments primarily engaged in canning seafoods are classified in Industry 2091; and those manufacturing canned specialties, such as baby foods and soups, except seafood, are classified in Industry 2032.

Product Examples:

Artichokes in olive oil, canned
Barbecue sauce
Catsup
Cherries, maraschino
Chili sauce, tomato
Fruit butters
Fruit pie mixes
Fruits, canned
Hominy, canned
Jams, including imitation
Jellies, edible: including imitation
Juice, fruit: concentrated-hot pack
Juices, fresh: fruit or vegetable
Juices, fruit and vegetable: canned or fresh
Ketchup
Marmalade

Mushrooms, canned
Nectars, fruit
Olives, including stuffed: canned
Pastes, fruit and vegetable
Preserves, including imitation
Purees, fruit and vegetable
Sauces, tomato-based
Sauerkraut, canned
Seasonings (prepared sauces), tomato
Spaghetti sauce
Tomato juice and cocktails, canned
Tomato paste
Tomato sauce
Vegetable pie mixes
Vegetables, canned

Standard Industrial Classification Code (Cont.)

2047: Dog and Cat Food

SIC Code Description:

Establishments primarily engaged in manufacturing dog and cat food from cereal, meat, and other ingredients. These preparations may be canned, frozen, or dry. Establishments primarily engaged in manufacturing feed for animals other than dogs and cats are classified in Industry 2048.

Product Examples:

Cat Food
Dog Food

2091: Canned and Cured Fish and Seafoods

SIC Code Description:

Establishments primarily engaged in cooking and canning fish, shrimp, oysters, clams, crabs, and other seafoods, including soups; and those engaged in smoking, salting, drying, or otherwise curing fish and other seafoods for the trade. Establishments primarily engaged in shucking and packing fresh oysters in nonsealed containers, or in freezing or preparing fresh fish, are classified in Industry 2092.

Product Examples:

Canned fish, crustacea, and mollusks	Herring: smoked, salted, dried, and pickled
Caviar, canned	Mackerel: smoked, salted, dried, and pickled
Chowders, fish and seafood: canned	Oysters, canned and cured
Clam bouillon, broth, chowder, juice: bottled or canned	Salmon: smoked, salted, dried, canned, and pickled
Codfish: smoked, salted, dried, and pickled	Sardines, canned
Crab meat, canned and cured	Shellfish, canned and cured
Finnan haddie (smoked haddock)	Shrimp, canned and cured
Fish and seafood cakes: canned	Soups, fish and seafood: canned
Fish egg bait, canned	Stews, fish and seafood: canned
Fish, canned and cured	Tuna fish, canned
Fish: cured, dried, pickled, salted, and smoked	