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Understanding and Obtaining a Universal Product Code

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Given competitive pressures to reduce cost and to increase efficiency, food retailers are relying more on Universal Product Codes (UPC) to track inventory and collect accurate information on variable weight items like value-added fresh produce. Analyzing sales data provides food retailers with valuable information on product movement and product shrinkage. Without a UPC, food retailers have to rely on cashiers to key in product information which can lead to problems such as inaccurate or incorrect product information being entered into the system.

When a cashier scans a consumer product with a UPC, the UPC scanner reads the bar code and it is recorded into a computer. The computer automatically displays the product price and sums all the purchases to determine the shoppers total bill. As a product is sold, information is relayed to the inventory system and the product's stock level is recalculated. When inventories are reduced to a specified level, it alerts the retailer to reorder the item. In addition, collecting product movement data allows retailers to more easily determine which products are moving quickly, estimate shrinkage, and evaluate promotional effectiveness.

UPCs are issued by the Uniform Code Council (UCC) which is a non-governmental entity. To obtain a UPC, a company must become a member of the UCC and is required to pay a one-time membership fee based on the company's domestic sales. The membership fee currently ranges from \$500 for companies under \$2 million annual sales to \$15,000 for companies over \$500 million annual sales. In addition, a registration fee of \$300 is required. The membership application can be obtained by calling (937) 435-3870 or visiting the UCC's web site, <http://www.uc-council.org>. The web site also provides detailed information on the UCC and UPCs.

Once a company number is obtained, it is possible for a company to generate its own product labels by utilizing commercial bar code software. For example, a company could

purchase a software package like “The Bar Tender for Windows.” This software is available from Advanced Computers & Electronics (<http://www.scanlite.com/bartend.html>).

A UPC consists of 12 digit numbers with a corresponding machine readable bar code. The UCC is responsible for generating and issuing unique product UPCs to ensure that each code is unique. The digits or bar codes can be broken down into four different components with each component having a different function.



- The first digit represents the product’s Number System Character (NSC) which specifies in which category a product will be classified. For example, a 2 in the first digit space would indicate that the product is a random weight product like fresh meat. The NSC codes are as follows:
 - 0 assigned to all items except those below:
 - 2 assigned to random weight items such as meat and poultry
 - 3 assigned to companies identifying their NSC number as their UPC
 - 4 assigned for retailer use only
 - 5 assigned to coupons
 - 6 and 7 assigned to industrial applications and retailer applications
- The second through fifth digits represent the manufacture’s number which is assigned by the UCC.
- The sixth through eleventh digits represent the item code number. This is assigned and controlled by the member company. The five digit item code number should be unique for each consumer package and/or shipping container. For example, peanut butter comes in a number of container sizes as well as crunchy or smooth, and each of these products would have a different item code number. The five digit number allows a company to assign up to 100,000 unique item numbers to their assigned UPC. It is important to keep track of which code is assigned to each product and relay this information to trading partners.
- The twelfth or last digit represents the check digit. The scanner uses the first 11 digits of the UPC number to instantly verify the accurate data translation of the symbol as it is scanned.

The UCC will phase out the UPC coding by the year 2005 and adopt the European Article

Number or EAN which is utilized by the rest of the world. It is necessary to switch from the UPC to EAN because the 12 digit UPC will exhaust all available numbers. The EAN incorporates 13 digits into its code thus providing more codes.

For an application and additional information on obtaining a bar code or UPC contact:

Uniform Code Council, Inc.
Corporate Offices
1009 Lenox Drive, Suite 202
Lawrenceville, NJ 08648-2313, USA
Phone 609.620.0200 Fax 609.620.1200

Customer Service
7887 Washington Village Drive, Suite 300
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