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2005 Sunrise and the Global Trade Item Number – in English!

Background

The number of European and Asian products marked with EAN (eight and thirteen digit) symbols is increasing. (The EAN is the European version of the American U.P.C.)

European and Asian companies, who wish to sell products in the U.S. and Canada, have to secure American U.P.C.'s to do so.

The Uniform Code Council (UCC) – the company that issues Company Prefixes [the basis of the Universal Product Code (U.P.C.)] is running out of Prefixes; and as such, they are not going to issue U.P.C.'s to European and Asian firms.

Point of Sale systems in the United States are, by default, not capable of scanning the EAN-8 and EAN-13 symbols – SO – European firms that wish to sell their products in the U.S. and Canada have a problem.

The solution – 2005 Sunrise

As of January 1, 2005, ALL Point of Sale applications (scanners and software) must be able to scan and process the EAN-8, EAN-13, U.P.C.-E (eight digit), and U.P.C.-A (twelve digit) codes.

So who does this affect? Firms that manufacture the following:

Laser Scanners – like Symbol, PSC, and Handheld Products
Point of Sale Software – like Microsoft (RMS), Quicken, and CAM Commerce
Warehouse Management Systems (WMS) – like ASC, IntelliTrack, and Radio Beacon

Who else does this affect? Anyone who scans a U.P.C. as part of a sale, such as:

Retail Stores
Specialty Stores
Department Stores
Convenience Stores

Is anyone NOT affected? Yes - firms that manufacture or distribute items sold at Wholesale and Retail.

Be warned however, there are certain requirements if you create internal U.P.C.'s and if you store data in a non-standard format. Keep reading.

The Data

Many small manufacturers do not have their own U.P.C.'s; so they rely on retail stores – those selling their products – to create “internal” U.P.C.'s, beginning with a 1, 8, or 9.

The Problem

The UCC is going to begin assigning Company Prefixes beginning with a 1, 8, or 9. When this happens, duplicate U.P.C.'s may begin to exist in vendor files.

The Data

Established Point of Sale systems – from major vendors – only store eleven digits of the U.P.C.-A.

The Problem

Which eleven? Positions one to eleven – removing the check digit. Positions two to twelve – removing the leading digit. In either case, the accurate U.P.C. may not be indicated.

The Data

Grocery and Health & Beauty distributors tend to store only ten digits of the U.P.C.-A, removing the first and last digits. [In some cases, the ten digits are stored as two five-digit fields – one for the Company Prefix and one for the Stock Keeping Unit (SKU).]

The Problem

What is the leading digit? Is it a 0, a 3, a 6, etc. Given the massive number of U.P.C.'s, the elimination of a leading digit may lead to an incorrect or inaccurate data record.

Furthermore, by assuming that five digits is an accurate UCC Company Prefix (when there are variable length Prefixes being assigned by the UCC), there exists another possibility for incorrect or inaccurate data.

The solution – The Global Trade Item Number (GTIN)

As of January 1, 2005, ALL EAN-8, EAN-13, U.P.C.-E, and U.P.C.-A data structures will conform to the new GTIN fourteen-digit standard. In other words, all eight, twelve, and thirteen digit codes become fourteen digits.

How? Right-justify the number and zero-fill on the left. As an example:

The EAN-8 code – 4971501 becomes GTIN – 0000004971501

The U.P.C.-A code – 052100002590 becomes GTIN - 00052100002590

The EAN-13 code – 8690690030153 becomes GTIN – 08690690031053

HOWEVER, this applies to the scanning and processing operations only. This does NOT mean that manufacturers or distributors have to RE-label or RE-mark their products. This is a “back-end” operation.

Back-end? What?

On January 1, 2005 I purchase a can of Coca-Cola. The laser scanner reads the twelve-digit U.P.C. on the can, the scanner outputs the fourteen-digit GTIN (by right-justifying and zero-filling left), and the Point of Sale system looks up the fourteen-digit GTIN in the item database to retrieve the price.

So who does this affect? Everyone affected by 2005 Sunrise – the POS hardware and software manufacturers – and the product manufacturers and distributors.

The difference is that the POS hardware and software vendors have to make sweeping changes in their systems; but the product manufacturers and distributors have to make their product catalogs (databases) GTIN compliant (by right-justifying and zero-filling left to the fourteen digit requirement).

In addition to the fourteen-digit standard, parsing of U.P.C.'s (dropping lead and / or check digits and separation of the Company Prefix from the SKU) should be discontinued.

Final Comments

Sunrise 2005 and GTIN are complimentary initiatives. Compliance requires that both be implemented by January 1, 2005.

Attached to this document are Compliance Checklists from the Uniform Code Council, and a two-page overview of 2005 Sunrise. They provide additional information, though mostly it's in UCC-speak.

Should you have further questions about Sunrise 2005 and the GTIN, or should you need to make your data GTIN compliant, please call my office at 469-675-0603, or send me a message at gregg@glondon.com

For clients who have purchased U.P.C.'s or U.P.C. Databases from me, rest assured that all the codes I've supplied will be GTIN compliant by July of 2004.

2005 Sunrise Compliance Checklist

2005 COMPLIANCE DEFINITION

- Systems and applications are able to scan and process EAN-8 and EAN-13 symbols in addition to the 12-digit U.P.C. at point-of-sale.
- Product identification numbers scanned from EAN-8, U.P.C., and EAN-13 symbols are processed and stored in their entirety. The practice of parsing or changing the GTINs is discontinued**.
- Accept from suppliers and do not erroneously assign in internal applications U.P.C. numbers using lead digits of 1, 8, and 9.

**Exceptions: Variable measure product identification using UCC Prefix number 2, internal identification using UCC Prefix number 4, and Coupon Processing using UCC Company Prefix number 5.

INFORM

I have informed everyone about potential 2005 Sunrise issues:

- Employees
- IS Department
- EDI/eCommerce Departments
- Operations Departments
- Category Managers/Merchandise Buyers
- Suppliers

ASSESS

I have inventoried all hardware and software applications in my company related to product and service identification, i.e., use 12 digit GTINs from U.P.C.s. I have inventoried and checked all:

- Point-of-Sale (POS) software and hardware
- Inventory devices and systems
- Distribution and Receiving systems
- Ordering Systems
- Order Fulfillment Systems
- Accounts Receivable Systems
- Accounts Payable Systems
- Product Catalogs
- Other Systems

CONTACT

I have contacted the providers of all the hardware and software that my company uses and have asked if the product is 2005 Sunrise Compliant. If the product is not 2005 Sunrise Compliant, I have requested that the provider make it 2005 Sunrise Compliant prior to January 1, 2005.

- ❑ Point-of-Sale software and hardware
- ❑ Scanning Equipment
- ❑ Direct Store Delivery System Providers
- ❑ ERP Solution Providers
- ❑ Warehouse Management System Providers
- ❑ Other Solution Providers

UPGRADE/REPAIR

I have set priorities for making all non-compliant hardware and software 2005 Sunrise compliant. I have identified the software and hardware that is critical to my operation and designated that these items will be addressed first. I have either:

- ❑ Upgraded or replaced to be 2005 Sunrise Compliant
- ❑ Repaired or corrected to be 2005 Sunrise Compliant

TESTING

I have included enough time for hardware and software testing to prove that my systems are 2005 Sunrise Compliant. My systems will:

- ❑ Accommodate 8-digit (EAN/UCC-8), 12-digit (UCC-12), and 13-digit (EAN/UCC-13) GTINs
- ❑ Be fully tested and operational six months prior to the January 1, 2005 deadline

GTIN Compliance Checklist

GTIN COMPLIANCE DEFINITION

- 2005 Sunrise Compliance plus the ability to process and store 14-digit GTINs. Therefore, a GTIN Compliant company will be able to process, store, and communicate with trading partners using all GTINs, whether 8, 12, 13, or 14 digits. The UCC recommends that GTINs are stored as 14-digit numbers by right justifying and zero-filling left, as appropriate.
- GTIN Compliance does not assume the ability to scan RSS symbols.

INFORM

I have informed everyone about potential GTIN Compliance issues:

- Employees
- IS Department
- EDI/eCommerce Departments
- Operations Departments
- Category Managers/Merchandise Buyers
- Suppliers

ASSESS

I have inventoried all hardware and software applications in my company related to product and service identification, i.e., use GTINs. I have inventoried and checked all:

- Point-of-Sale (POS) software and hardware
- Inventory devices and systems
- Distribution and Receiving systems
- Ordering Systems
- Order Fulfillment Systems
- Accounts Receivable Systems
- Accounts Payable Systems
- Product Catalogs
- Other Systems

CONTACT

I have contacted the providers of all the hardware and software that my company uses and have asked if the product is GTIN Compliant. If the product is not GTIN Compliant, I have requested that the provider make it GTIN Compliant.

- Point-of-Sale software and hardware
- Scanning Equipment
- Direct Store Delivery System Providers
- ERP Solution Providers
- Warehouse Management System Providers

- ❑ Other Solution Providers

UPGRADE/REPAIR

I have set priorities for making all non-compliant hardware and software GTIN Compliant. I have identified the software and hardware that is critical to my operation and designated that these items will be addressed first. I have either:

- ❑ Upgraded or replaced to be GTIN Compliant
- ❑ Repaired or corrected to be GTIN Compliant

TESTING

I have included enough time for hardware and software testing to prove that my systems are GTIN Compliant. My systems will:

- ❑ Process, store, and communicate with trading partners using all GTINs, whether 8, 12, 13, or 14 digits
- ❑ Be fully tested and operational

RSS Compliance Checklist

RSS COMPLIANCE

- GTIN Compliance plus the ability to scan RSS symbols at Point-of-Sale and other scanning locations.

CHECKLIST

- Use GTIN Compliance Checklist.



2005 SUNRISE

INTRODUCTION

Since the introduction of the 12-digit Universal Product Code (U.P.C.) more than 30 years ago, the use of the EAN.UCC System has expanded rapidly to facilitate global commerce. To meet the need for improving commerce efficiency, the Uniform Code Council, Inc. (UCC) has announced that by January 1, 2005 all U.S. and Canadian companies must be capable of scanning and processing EAN-8 and EAN-13 symbols, in addition to 12-digit U.P.C. symbols, at point-of-sale. The UCC announced this initiative, named 2005 Sunrise, in 1997 to allow U.S. and Canadian companies ample time to address all conversion issues. There are also topics related to 2005 Sunrise that deserve every company's attention.

WHY IS 2005 SUNRISE IMPORTANT?

- With the exception of the United States and Canada, retail products from around the world are marked with EAN-8 and EAN-13 symbols. To sell those products in the U.S. and Canada, manufacturers must re-label with a 12-digit U.P.C. symbol. This creates additional expense and time-to-market issues. Expanding system capability to scan and process EAN-8 and EAN-13 symbols, as well as U.P.C. symbols, will allow companies to handle a greater range of products.
- The number of products identified with EAN-8 and EAN-13 symbols will increase quickly after January 1, 2005 because UCC Company Prefixes will no longer be issued to new companies based outside of the U.S. and Canada. Therefore, these new companies will be marking their products with EAN-8 or EAN-13 symbols. In addition, some U.S. and Canadian companies will be assigned UCC Company Prefixes with lead digits of 10 to 13. These Company Prefixes can only be used to create EAN-13 symbols, and not U.P.C. symbols.
- The method by which the UCC assigns UCC Company Prefixes changed in March 2000. UCC Company Prefixes are no longer issued as just 6-digit numbers; they now vary between 6 and 10 digits in length. Additionally, the Company Prefixes encoded in EAN-13 and EAN-8 symbols also vary in length. This is important should companies have systems or applications that assume all Company Prefixes are 6-digit numbers.
- The UCC has opened new UCC Company Prefixes with lead digits of 1, 8 and 9 for assignment to new companies. Companies that are erroneously using these lead numbers in their internal systems will have them clash with valid U.P.C.s assigned by other companies.



WHAT DOES IT MEAN TO BE 2005 SUNRISE COMPLIANT?

- Ensuring systems and applications are able to scan and process EAN-8 and EAN-13 symbols in addition to the 12-digit U.P.C. at point-of-sale.
- As a best practice, the UCC has always recommended that the product identification numbers scanned from EAN-8, U.P.C., and EAN-13 symbols be processed and stored in their entirety. Note: these product identification numbers are properly referred to as Global Trade Item Numbers (GTINs). This is important because companies that parse or change the GTIN risk storing and sharing bad information with their trading partners. Erroneous practices include dropping check digits and extracting the UCC Company Prefix to identify the supplier. Companies who parse or change the GTINs must discontinue this practice.
- Companies that erroneously assign numbers in their internal applications using lead digits of 1, 8, or 9 must discontinue this practice.

WHAT ARE THE TOPICS RELATED TO 2005 SUNRISE THAT EVERY COMPANY SHOULD CONSIDER?

- The UCC recommends that companies consider topics related to 2005 Sunrise. Since 2005 Sunrise may require system changes for companies, there are two important changes to business practices underway globally that companies may choose to begin preparing for now.
- Reduced Space Symbology® (RSS) symbols bring bar code marking to items that are too small for the traditional U.P.C. or where there is a business requirement to scan additional data at point-of-sale. RSS is currently being applied to produce, fresh meat, pharmacy, and medical/surgical products. Other RSS business applications, including greeting cards and serialization, are receiving industry consideration.
- Data synchronization using the GLOBALregistry™ of UCCnet requires the identification of products at all levels of packaging.
- GTIN Compliance is required for both Reduced Space Symbology (RSS) and data synchronization using the GLOBALregistry of UCCnet.

WHAT DOES IT MEAN TO BE GTIN COMPLIANT?

- GTIN is an umbrella term used to describe the entire family of data structures that identify trade items (products and services). GTINs consist of four data structures that are 8, 12, 13 and 14 digits in length. For example, the EAN-8, EAN-13, U.P.C., and RSS symbols on products all encode GTINs.
- To be GTIN Compliant, a company must be 2005 Sunrise Compliant plus be able to process and store 14-digit GTINs. Therefore, a GTIN Compliant company will be able to process, store, and communicate with trading partners using all GTINs, whether 8, 12, 13, or 14 digits. The UCC recommends that GTINs are stored as 14-digit numbers by right justifying and zero-filling left, as appropriate.
- GTIN compliance does not assume the ability to scan RSS symbols.

RECOMMENDATIONS:

- A company that must upgrade its systems to become 2005 Sunrise Compliant should plan to become GTIN Compliant. For little or no incremental cost over becoming 2005 Sunrise Compliant, a company can be ready to use RSS symbols and/or data synchronization.
- A company that is 2005 Sunrise Compliant but not GTIN Compliant needs to make a business decision whether to become GTIN Compliant. Remember that GTIN compliance is required to use RSS symbols and/or to pursue data synchronization.

DELAYS CAN CREATE CONSEQUENCES.

Failure to update systems may have the following consequences:

- The inability to share standardized information with trading partners.
- Additional product marking costs for trading partners and, ultimately, the consumer.
- Consumers will experience service problems.
- Time-to-market delays and other critical inefficiencies.

The UCC urges all companies that have not yet achieved 2005 Sunrise compliance to begin system planning, testing, and update/conversion activities. The time to start is now!



Uniform Code Council, Inc.®
The Global Language of Business®

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