

# The Impact of the 2005 Sunrise Date on EDI Qualifiers



White Paper



## ***January, 2005 Sunrise Date Impact on EDI Qualifiers***

### ***Executive Summary***

#### **Global Trade Item Numbers (GTINs) Are Here**

The details surrounding the January 1, 2005 Sunrise Date Initiative have created many compelling business reasons for companies to update and expand their databases, systems and applications to accept and store the family of GTIN (Global Trade Item Number) data structures. By updating systems prior to January of 2005, North American companies and their trading partners will be able to accept and store these data structures. This will allow companies to conduct efficient global trade by enabling the full use of the EAN/UCC System. To support GTIN, there is a need to examine the current state and recommend a course of action for the use of EDI qualifiers that the 2005 Sunrise Date initiative has surfaced.

Many EDI qualifiers (data identifiers) were created and adopted to express U.P.C. information in electronic messages. As a result, it is recommended that changes between trading partners be addressed prior to 2005 to avoid future system confusion. This paper will examine the primary issues surrounding the present state and recommended use of EDI qualifiers in preparation for the 2005 Sunrise Date implementation.

Another important detail worthy of attention is the issue of varying length UCC Company Prefixes. A primary responsibility of the Uniform Code Council is to assign a unique Company Prefix to each member company, which facilitates unique identification of products and services anywhere in the world. Previously, UCC Company Prefixes were a fixed length of six digits. Assignments of UCC Company Prefixes now range between 6 to 10 digits in length. This is an important change because implementations that support the practice of parsing of a Company Prefix or item reference will need to be eliminated.

This paper will provide background and recommendations to help you and your company understand the impact of the 2005 Sunrise initiative on EDI qualifiers. We welcome feedback and questions that can help your company accomplish the necessary changes.



## **1. History and Current Usage of EDI Qualifiers to Identify U.P.C.**

The 1974 introduction of the Universal Product Code (U.P.C.) and the broad implementation of EDI standards beginning in the mid-1980s have greatly influenced the usage of the U.P.C. as a primary product and service identifier within EDI standards employed in the supply chain. As industry implementation of the EDI standards advanced, there has been a proliferation of EDI Qualifiers (data identifiers) created and adopted to express U.P.C. information in electronic message files. Many industries have determined the need to develop very unique methods of representing the U.P.C. to satisfy system constraints or business situations.

Some examples of these unique implementations include the removal of digits from the numeric representation of the number. As an example, one U.P.C. implementation currently supports the removal of the encoded check digit responsible for ensuring the validity of the U.P.C. The general thought of early implementers was that the check digit was a character that could be calculated, therefore unnecessary to be transmitted or stored as a part of the U.P.C. Examples of EDI qualifiers that support the removal of the check digit include the following:

?? UI - U.P.C. Consumer Package Code (1-5-5)

?? UD - U.P.C./EAN Consumer Package Code (2-5-5)

Other implementations have supported the parsing of the Universal Product Code number in an attempt to separate or segregate the UCC Company Prefix from the remainder of the number that identifies the consumer unit. Software applications have been written permitting the first six digits of a U.P.C. to be cross-referenced to a specific manufacturer. Beginning in the year 2000, it became necessary for the UCC to assign variable length Company Prefixes in order to preserve system capacity. The length of the Company Prefix is carefully



determined based on a manufacturer's product needs, with a range between 6 and 10 digits.

The Uniform Code Council has never supported the parsing of the U.P.C. in any way and strongly recommends that this practice be immediately discontinued.

Today, there are 12 unique qualifiers defined within the ASC X12 EDI standard for the U.P.C. Many of them exist in support of these unique implementations. Efforts are currently underway to understand the cross-industry usage of the U.P.C. qualifiers and eliminate those that cannot support the integrity of the globally implemented Global Trade Item Number (GTIN).

## 2. Business Case

A major role of EAN International and the UCC is to ensure that the globally unique numbers identify a product or service within the EAN.UCC System. Many companies have now clearly recognized the necessity for global product identification, including those conducting electronic trade exclusively within national borders. EAN International and the UCC centrally manage the assignment of EAN.UCC Company Prefixes in order to ensure global uniqueness. Additionally, there are rules for constructing Global Trade Item Numbers (GTIN) so their uniqueness can be maintained when used in the EAN.UCC family of data structures. The data structures comprising GTIN as expressed in electronic commerce includes the following EDI qualifiers and definitions:

- |       |   |
|-------|---|
| ?? EO | EAN/UCC-8   |
|       | An 8-digit number that is used predominantly outside of North America |
| ?? UP | UCC-12 (also known as the U.P.C.)                                     |
|       | A 12-digit number used predominantly in North America                 |



- ?? EN EAN/UCC-13  
A 13-digit number currently used predominantly outside of North America
- ?? UK EAN/UCC-14  
A 14-digit number used to identify trade items at various packaging levels

To create a correctly structured GTIN from any of the aforementioned data structures, place the number in a 14-digit field, **right justify** the number and **zero fill to the left**. This is the only way to ensure global uniqueness for trade item identification. EAN International and the Uniform Code Council do not prescribe the actual design of databases; however, any design must support the 14-digit structure. The following example illustrates GTIN compliancy within the 14-digit structure for the four data structures.

## EDI qualifiers currently supporting GTIN

### 14-digit GTIN

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
EO EAN/UCC-8	0	0	0	0	0	0	X	X	X	X	X	X	X	C
UP UCC-12	0	0	X	X	X	X	X	X	X	X	X	X	X	C
EN EAN/UCC-13	0	X	X	X	X	X	X	X	X	X	X	X	X	C
UK EAN/UCC-14	X	X	X	X	X	X	X	X	X	X	X	X	X	C

In order to maintain the global uniqueness of GTINs and ensure their viability with current and future business technologies, it is critical that all practices of stripping or parsing of numbers be eliminated. It is equally important to limit the



use of EDI qualifiers solely to the four (4) EDI qualifiers that uniquely identify the family of GTIN structures and ultimately to provide for a single qualifier to express the 14-digit GTIN. This recommendation of the UCC can be accomplished in a 3-step approach by working in conjunction with our member companies.

### 3. Recommendations

The following 3 steps detail the recommended approach to align the EDI standards (EDI Qualifiers) with the important 2005 Sunrise initiative:

- 1) Working with its member companies, the UCC will identify for removal all unique U.P.C. qualifiers currently in use within UCC EDI Implementation Guidelines. All changes to the guidelines produced by the Uniform Code Council would be accomplished via the submission of Change Requests to the Global Standards Management Process (GSMP) Change Management System. The objective is to support the 4 GTIN EDI qualifiers in the Version 004060 (2003) release.
- 2) A Change Request will be submitted to the GSMP Change Management System requesting a **new** EDI qualifier to identify the 14-digit GTIN structure. The objective is to have this qualifier approved and published in the ASC X12 EDI Standards and UCC EDI Guidelines in Version 005010 (2004). Additionally, the existing GTIN EDI qualifiers will be removed from the EDI Guidelines in the Version 005010 release.
- 3) A Change Request will be submitted to the GSMP Change Management System to implement product hierarchy and trade item descriptors in the EDI Transaction Sets. Trade item descriptors define the trade item containers or packaging. Examples of this include pallet, module, case, and inner pack. Enabling the use of product hierarchy within the EDI transaction sets will accomplish the need for unique GTIN identification while providing a mechanism to meet the business need of expressing



product containment or packaging. The objective is to have a solution for product hierarchy approved and published in the ASC X12 EDI Standards and UCC EDI Guidelines in Version 005010 (2004).

#### **4. Conclusion**

All companies are urged to review the issues surrounding the many EDI qualifiers currently in use in today's systems. The UCC welcomes feedback and questions that can help your company accomplish the necessary changes.

Should you need background information regarding GTINs, please visit the UCC website at: [www.uc-council.org](http://www.uc-council.org) or contact the UCC at [info@uc-council.org](mailto:info@uc-council.org).

#### ***Additional Resources***

UCC Website for Online 2005 Sunrise Updated Information  
[www.uc-council.org/2005sunrise](http://www.uc-council.org/2005sunrise)

UCC Customer Service Call Center  
937 435 3870  
[info@uc-council.org](mailto:info@uc-council.org)

Educational Opportunities:  
UCC U Connect Conference  
UCC Supply Chain U?