



THE GLOBAL LANGUAGE  
OF BUSINESS

## CASE STUDY



# GS1 US Data Hub® and Bar Code Graphics



## Delivering value-added data validation services

**“From an ROI perspective, if a retailer or supplier prevents one error and the resulting costs, I believe Data Hub would pay for itself.”**

— **ANDY VERB**, Co-Owner and  
President, Bar Code Graphics

### CHALLENGE

To support clients using GS1 Standards, Bar Code Graphics (BCG) recognized the need to monitor barcode print quality and data accuracy. Verifying the GS1 Company Prefix is integrated within the company’s testing processes, and was once performed manually. As more industries adopted GS1 Standards, barcode volume increased, making manual look-ups very time consuming.

### SOLUTION

BCG now uses the GS1 Data Hub (Data Hub) to automate the verification of GS1 Company Prefixes. Approximately 18 percent of its testing companies have data quality issues, including incorrect encodation of GS1 Company Prefixes or using GS1 Company Prefixes that do not belong to them. In addition to automating testing processes, BCG uses Data Hub to provide its testing clients with an easy way to verify their own GS1 Company Prefix.

### BENEFITS

BCG now has a more streamlined validation process for faster barcode evaluation results. It gets the exact data displayed in the GS1 US database for more accurate validation services. Using the Data Hub API, integration is simple and quick, requiring minimal IT resources for installation. BCG can also provide clients additional validation services, offering them opportunities to look-up their Company Prefixes via Data Hub connections.

## Quality Controls for Quality Data

For more than 40 years, BCG has been involved with barcodes and item identification, beginning with its participation in the Uniform Code Council (UCC) for creating the printing specifications for Uniform Product Code symbols in 1974.

Today, the company is a leading service bureau for digital barcode artwork and preprinted tags and labels as well as a top authority on barcode symbol quality. Many BCG staff members are also GS1 US-Certified Bar Code Professionals, and BCG is a GS1 US Solution Partner.

Andy Verb, the company's second-generation co-owner and president, has first-hand experience with the industry's rapid change since the 70's.

"Over the years, as item identification and barcoding have become increasingly relevant in commerce, so has the need for quality data encoded in the barcode," explains Verb. "At the same time, the emergence of technologies like desktop publishing and digital printing has had a negative impact on quality control measures, leading to a decline in barcode print quality. To address this issue, we created our testing services division, Identification Labs."

Identification Labs verifies and validates both the barcode print quality and the data encoded in the barcode. In an average month, BCG conducts approximately 300 barcode evaluations, uncovering issues each and every day.

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## Collisions and Risks

The importance of validated, accurate data is evident when considering the impact of inaccurate data on trading partners. "Wrong data may reference the wrong brand or product, leading to product collision in the marketplace," explains Verb. "Inaccurate data or poor barcode quality will slow down and add costs to a manufacturer's supply chain and impact a retailer's ability to make products available to consumers. Eventually, trading relationships are tarnished."

## WHAT IS THE GS1 US DATA HUB?

The GS1 US Data Hub is a quick way to get GS1 Company Prefix information on all the companies that have licensed from GS1 US. You can search by company name, by prefix value, by a specific Global Trade Item Number® (GTIN®) or by a specific Global Location Number (GLN). When you get your results, you can download those results for use with other tools. You can also download the entire GS1 US Company Prefix list for use in internal applications. GS1 US also makes an API available, should you need to connect directly to the Data Hub data from an external application.

If you are a retailer, GS1 Company Prefix data from the GS1 US Data Hub is invaluable for confirming that you are buying authentic products from a named manufacturer. If you are running an information business, like a data pool or other repository of product or location information, starting with validated data from the Data Hub improves the quality of the data you make available through your product.

Verb points to another critical area for data verification: coupons. A significant part of BCG's services is validating coupon barcodes for large retailers and advertising agencies. If coupon barcodes can't be scanned at points of sale, the information must be keyed in manually. In these cases, clearing houses are charged a hard-to-handle fee - a real cost to non-compliance.

Verb continues, "A major component of our services is to validate the [GS1] Company Prefix, making sure it belongs to the right company. In many cases, we also correct the position of data in a string in the barcode."

## Manual to Automated

For many years, BCG would validate a supplier's GS1 Company Prefix by requesting a copy of its UCC or GS1 certificate. Later, GS1 offered its Global Electronic Party Information Registry (GEPiR) for online access to all licensed GS1 Company Prefixes. GEPiR, while useful to BCG, was designed for occasional single query use and was not up to the challenge of the thousands of barcode validations BCG performs each month.

With the introduction of the GS1 US Data Hub, BCG has now automated its Company Prefix validation process. "We access validated GS1 Company Prefix data by dynamically hooking up all of our web-based testing portals directly into the Data Hub via its API," explains Verb. "It has really streamlined our services, and because we get the exact data that is displayed in the GS1 US database, Data Hub helps us provide a better service."

BCG also offers online tools via its company website to help companies research GS1 Company Prefixes.

"We encourage clients to use our Data Hub connection to confirm that the Company Prefix they are giving us is correct," says Verb. "We are also using the Data Hub to educate our clients since there is a lot of misinformation on the Internet. For example, after testing a company's barcode, we may find that another company is the legitimate licensee of the company prefix encoded in the UPC. This leads to a discussion about the need for our client to contact GS1 US to get a GS1 Company Prefix. We're happy to assist and take any confusion out of the process."

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## A Simple Decision

When GS1 US developed the Data Hub, Bar Code Graphics participated in the beta test program. Verb immediately got involved, recognizing the synergies between the Data Hub concept and his company's services.

"They made the integration quite simple, and the API instructions are very well documented," advises Verb. "We are busy integrating Data Hub with our different platforms and are able to utilize the APIs with only a few IT resources for installation."

Verb believes Data Hub has "wonderful potential" for other solution providers like BCG or retailers and suppliers that want to make sure their data is clean. "If they have a mechanism where suppliers add product data into their systems, it would be very easy to install a type of filter enabled by the Data Hub to help prevent any type of identifier collisions," explains Verb. "From an ROI perspective, if a retailer or supplier prevents one error and the resulting costs, I believe Data Hub would pay for itself."

Through the years, GS1 Standards have helped us stay ahead in our industry," continues Verb. "We are big believers in GS1 Standards and the benefits they provide to all types and sizes of organizations. Using the Data Hub was a simple decision: It helps us provide value-added services to help our customers be successful with quality data."

The screenshot shows the 'GS1 Databar Coupon Decoder' interface. The 'Data' field contains the coupon string '8110081414100000220110000'. The 'Required Fields' section includes:

Application Identifier	8110
GS1 Company Prefix	0 814141
UPC Prefix	814141
GS1 Prefix	0814141
CompanyName	GS1 US, INC.
Offer Code	000000
Save Value	2 :20
Primary Purchase Requirement	1 :1
Primary Purchase Req. Code	0   Number of units
Primary Purchase Family Code	000

BCG integrated the Data Hub API into one of its complimentary tools for encoding and decoding GS1 DataBar<sup>®</sup> coupon data strings. In the near future, BCG plans to integrate the same validation functionality into its origination websites. As customers enter Company Prefix data into BCG systems to make labels, it will immediately show them the actual brand owner registered in the GS1 US Data Hub.

## About the Companies

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### CONTACT US

To learn more about how you can get started with GS1 US Data Hub, visit [www.gs1us.org/datahub](http://www.gs1us.org/datahub).

### ABOUT GS1 US

GS1 US, a member of the global information standards organization GS1®, brings industry communities together to solve supply-chain problems through the adoption and implementation of GS1 Standards. Nearly 300,000 businesses in 25 industries rely on GS1 US for trading-partner collaboration and for maximizing the cost effectiveness, speed, visibility, security and sustainability of their business processes. They achieve these benefits through solutions based on GS1 global unique numbering and identification systems, barcodes, Electronic Product Code (EPC®)-enabled RFID, data synchronization and electronic information exchange. GS1 US also manages the United Nations Standard Products and Services Code® (UNSPSC®). [www.gs1us.org](http://www.gs1us.org).

### ABOUT BAR CODE GRAPHICS

Bar Code Graphics' involvement with barcodes and item identification resulted from the company's participation with the Uniform Code Council's technical committee for creating the printing specifications for UPC symbols in 1974. Since then, Bar Code Graphics has emerged as both a leading service bureau for barcode artwork and preprinted tags and labels as well the top authority on barcode symbol quality. The company has an impressive client base of over 90,000 companies, ranging from small book publishers to global retailers. To keep customers up to date on the most current technology and specifications, Bar Code Graphics is actively involved with barcode technical committees for industries, including publishing, printing, retail, healthcare, and automotive. [www.barcode-us.com](http://www.barcode-us.com).



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**GS1 US Corporate Headquarters**  
Princeton Pike Corporate Center  
1009 Lenox Drive, Suite 202, Lawrenceville, NJ 08648 USA  
T +1 937.435.3870 E [info@gs1us.org](mailto:info@gs1us.org) W [www.gs1us.org](http://www.gs1us.org)

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