

GS1 DataBar POS Implementation Guide for Coupons

March 2012 Revised February 2017

© 2017 GS1 US



Proprietary Statement

This document contains proprietary information of GS1 US. It is intended solely for the information and use of parties utilizing the North American Coupon Application Guideline. Such proprietary information may not be used, reproduced, or disclosed to any other parties for any other purpose without the expressed written permission of GS1 US.

Improvements

Continuous improvement and changes are periodically made to publications by GS1 US. All material is subject to change without notice.

Disclaimer:

GS1 US® is providing this application guideline as a service to interested industries. This application guideline was developed through a consensus process of interested parties.

Although efforts have been made to assure that the application guideline is correct, reliable, and technically accurate, GS1 US makes NO WARRANTY, EXPRESS OR IMPLIED, THAT THIS APPLICATION GUIDELINE IS CORRECT, WILL NOT REQUIRE MODIFICATION AS EXPERIENCE AND TECHNOLOGICAL ADVANCES DICTATE, OR WILL BE SUITABLE FOR ANY PURPOSE OR WORKABLE IN ANY APPLICATION, OR OTHERWISE. Each user of the application guideline assumes all risk and responsibility for its use of the materials.

Use of this application guideline is with the understanding that GS1 US accepts no liability whatsoever for any direct, indirect, special or other consequential damages of whatever kind resulting from whatever cause through the use of the application guideline or any information therein, even if GS1 US has been advised of the possibility of such damages.

Except as may be otherwise indicated in specific documents within this publication, you are authorized to view documents within this publication, subject to the following:

- 1. You agree to retain all copyright and other proprietary notices on every copy you make.
- Some documents may contain other proprietary notices and copyright information relating to that document. You agree that GS1 US has not conferred by implication, estoppels or otherwise any license or right under any patent, trademark or copyright (except as expressly provided above) of GS1 US or of any third party.

This publication is provided "as is" without warranty of any kind, either express or implied, including, but not limited to, the implied warranties of merchantability, fitness for a particular purpose, or non-infringement. Any GS1 US publication may include technical inaccuracies or typographical errors. GS1 US assumes no responsibility for and disclaims all liability for any errors or omissions in this publication or in other documents which are referred to within or linked to this publication. Some jurisdictions do not allow the exclusion of implied warranties, so the above exclusion may not apply to you.

Should you or any viewer of this publication respond with information, feedback, data, questions, comments, suggestions or the like regarding the content of any GS1 US publication, any such response shall be deemed not to be confidential and GS1 US shall be free to reproduce, use, disclose and distribute the response to others without limitation. You agree that GS1 US shall be free to use any ideas, concepts or techniques contained in your response for any purpose whatsoever including, but not limited to, developing, manufacturing and marketing products incorporating such ideas, concepts or techniques.

This publication is distributed internationally and may contain references to GS1 US products, programs and services that have not been announced in your country. These references do not imply that GS1 US intends to announce such products, programs or services in your country.



No Liability for Consequential Damage

In no event shall GS1 US or anyone else involved in the creation, production, or delivery of the accompanying documentation be liable for any damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of business information, or other pecuniary loss) arising out of the use of or the results of use of or inability to use such documentation, even if GS1 US has been advised of the possibility of such damages.

IAPMO

In this publication, the letters "U.P.C." are used solely as an abbreviation for the "Universal Product Code" which is a product identification system. They do not refer to the UPC, which is a federally registered certification mark of the International Association of Plumbing and Mechanical Officials (IAPMO) to certify compliance with a Uniform Plumbing Code as authorized by IAPMO.

About GS1 US®

GS1 US Inc. is a not-for-profit organization dedicated to the adoption and implementation of standards-based, global supply chain solutions. GS1 US operates subsidiaries EPC global North America™, RosettaNet, and Global Data Synchronization Network™ (GDSN®). GS1 US manages the United Nations Standard Products and Services Code® (UNSPSC®) for the UN Development Programme. EPCglobal Inc™ is a joint venture of GS1 US and GS1®. GS1 US based solutions, including business processes, XML standards, EDI transaction sets, and the barcode identification standards of the GS1 System are currently used by more than one million companies worldwide. For more information, visit www.gs1us.org.

Revision History

June 2009	Initial Release
March 2012	Addition of new Proprietary and Disclaimer statements.
February 2017	Clarifications on interpretation of Purchase Requirement Code rules and accepted use of 992

Table of Contents

1. DataBar Parsing	5
2. GS1 Company Prefix Interpretation 2.1 Offer/Funder Identification 2.2 Variable Length Company Prefixes 2.3 Previous CP Indicator	6 6 7
3. 992 Bypass Validation/Cashier Intervention 3.1 Purchase Requirement Codes (PRC) and 992 3.2 Purchase Requirements (PR) and 992 3.3 Additional Purchase Rules Codes (APRC) and 992 3.4 Cashier Intervention 3.5 Cashier Intervention and 992 3.6 Free Offers and 992/Cashier Intervention	8 9 9 9
4. Offer Qualifier/Purchase Requirement Considerations 4.1 Primary Purchase Requirement (Qty) = 0 4.2 Repeated Item Purchase Requirements 4.3 Multiple Order Threshold Requirements 4.4 Free Offer Purchase Requirements 4.5 Additional Purchase Rules Code Processing Order 4.6 Support for Item Weight Purchase Codes (3-lb, 4-kg) 4.7 Order Threshold (Order Minimum) Requirements	12 13 13 13
5. Save Value Processing	20 21 23 24
6. Expiration and Start Dates	33
7. Retailer ID	34
8. Miscellaneous Items 8.1 Store Coupon Flag 8.2 Family Code Structure	35
9.Acknowledgments	36

DataBar Parsing

The required data Fields or Primary Purchase Requirement (Data Field 0) must appear first in the barcode data. Data Fields 1, 2, 3, 4, 5, 6 and 9 can appear in the barcode data in any order after the Required Fields. The POS system should parse and process each data field independently. As there can be multiple ways to construct and represent coupon offers given the expanded capability that the GS1 DataBar Coupon Specification provides, POS solution providers are encouraged to tolerate the various coding options that are available and utilize the encoded data to validate the coupon offer and deliver the value to the consumer, unless the critical data is malformed or the offer construct is illogical.

If the symbol is malformed or illogical, meaning a data field is repeated (e.g., two Data Field 1's [2nd Purchase Requirements,]) missing required data (e.g., presence of Data Field 2 and not Data Field 1), where the Purchase Requirement is less than Save Value quantity for Free Items [Save Value Code=2], or a Save Value Code of 2 is used, but the Save Value is zero (0), the POS should handle as an exception condition and reject the barcode. The handling of this exception is an implementer's choice. Recognizing that this condition would be similar to a situation where the barcode is not recognized by the scanner at all and both these conditions are not the fault of the customer, retailers may want the option to handle that coupon based solely on the human readable language meaning manually validate the offer requirements and key the coupon value using the appropriate coupon key. In addition some retailers may want to record the malformed barcode in an exception log for manufacturer remediation purposes.

In summary, while there are a number of coupon data fields that are optional for the coupon creator to choose based on the desired offer, POS solution providers need to parse and process all fields and attributes that comprise the full range of capabilities of the coupon specification. Selective processing of attributes can result in mal-redeemed offers resulting in chargebacks and/or customer dissatisfaction.

2. GS1 Company Prefix Interpretation

2.1 Offer/Funder Identification

The *funder* is the entity who will be billed for the offer during the clearing process. By definition, the offer's funder is identified by the GS1 Company Prefix ("CP") found in the Primary GS1 Company Prefix field within the Primary Purchase Requirement.

Typically, the funder is the manufacturer of the offered product(s). There are cases, however, where this may vary:

- A manufacturer may use more than one CP for the promoted products. In this case, the CP used as the Primary Requirement (and as such, the designated funder identifier) is at the manufacturer's discretion, based on its own coupon processing and/or budgeting protocols
- 2) An offer may be a joint effort of two or more manufacturers or other entities (e.g., retailers). In this case, the participating companies will determine under whose CP the coupons will be processed and billed and resolve any cross-billing outside of the clearing/billing process.
- 3) An offer may be sponsored by an unrelated party (e.g., promotions company) who has no products included in the offer. In this case, the Primary Purchase Requirement uses the unrelated party's CP with a 0 Purchase Requirement (0 purchase quantity).

If products or other purchase requirements representing more than one GS1 Company Prefix are used (e.g., an offer for one/more products labeled with more than one CP), care must be taken to ensure that the requirement coded in the primary fields is that of the funder.

Note that this can present challenges when certain Purchase Rules Codes (Data Field 1) are used (e.g., 2-"Primary Item and either 2nd or 3rd items"), especially when combined with free item offers. When working through coding options, always begin by establishing the Primary Purchase Requirement with the funder's GS1 Company Prefix. This should also be considered when determining the "billed" participant in the case of joint offers, as coding may drive the funder designation.

2.2 Variable Length Company Prefixes

Application Identifier (AI) 8112 that is encoded into the GS1 DataBar stores the full GS1 Company Prefix, which may range from 6 to 12 digits, in each of up to three qualifiers. It is intended to be used in conjunction with the qualifier's family code for purchase validation when an item Purchase Requirement Code (0-units, 1-\$ threshold unit, 3-lb, 4-kg) is used, much the way that validation was performed with the UPC-A company prefix/family code prior to the UPC-A's June 2015 sunset date. While the Company Prefix is not used to validate Purchase Requirement Code 2 \$ threshold transaction, a valid company prefix must still be encoded. Zero fill is not allowed.

POS systems may or may not store the full Global Trade Item Number (GTIN) in the item master used for the validation process (e.g., a 13-digit or 12-digit item number); POS systems should address this alignment when querying the records. A 12-digit GS1 Company Prefix is allowable in the guideline, meaning the company prefix is the same value as the retail product's GTIN excluding the leading packaging indicator and trailing check digit, and can be only assigned to products with GTIN or EAN-13 symbols; not U.P.C. symbols.

These fields should only contain valid GS1 Company Prefixes and coupon issuers may not encode values longer than the assigned CP as a means to improve matching of items, as these coupons will not process properly through the coupon clearing houses.

NOTE: The leading 0's on a GS1 Company Prefix ARE significant; that is, 030003 is a different GS1 Company Prefix than 0030003. This is necessary to support the left to right logical compare of the coupon's GS1 Company Prefix for the length of the prefix against the product's GTIN.

2.3 Previous CP Indicator

To shorten GS1 DataBar content, the specification allows for repeated GS1 Company Prefixes to be indicated with a Company Prefix VLI = 9 in the 2nd and 3rd qualifiers. If a "9" is encountered in the CP VLI element, there will be no GS1 Company Prefix to follow (the Primary Company Prefix is assumed). POS processing should be expecting the next Data Field Indicator.

3. 992 Bypass Validation/Cashier Intervention

Family code 992 retains its definition from UPC-A/GS1-128 usage: bypass purchase validation. In current processing, the 992 family code triggers an automatic deduction of the save value without making any attempt to validate purchases using a GS1 Company Prefix or family code.

Three of the four common reasons for using 992 in UPC-A have been addressed in with AI (8112) encoded into the GS1 DataBar to some extent:

- Multiple CP Purchase Requirements due to Mergers/Acquisitions, where the couponed products may be labeled with different CPs: The GS1 DataBar now holds up to three CP/family code combinations, so a majority of these instances should be accommodated. However, larger companies with a higher number of CPs may still need to use 992 to handle 4+ GS1 Company Prefixes on an offer.
- Retailer In-Ads, or any promotion where the funder (as designated by the UPC-A
 <u>Company Prefix</u>) has a different Company Prefix than the products redeemed on the
 <u>offer</u>: The GS1 DataBar's multiple purchase requirements will allow the funder to be
 identified in the Primary Company Prefix with a 0 unit Purchase Requirement, and the
 required items in the 2nd and 3rd qualifiers.
- Random or Variable Weight purchases, where the products are labeled with an GS1 Prefix 2 or PLU and do not contain the Company Prefix/Item Number needed for coupon purchase validation: This scenario will continue to exist for the short term, as the deficiency lies in the product labeling and not the coupon format. It is expected that random weight purchases will be the predominant reason for 992 use in GS1 DataBar coupons. However, as GTIN labeling is implemented across meat and produce, and these purchases can be validated like CPG items, use of 992 for variable weight should ultimately diminish.
- Scripted Offers, where the offer is generated post-purchase and no additional purchase is required (or any scenario where an explicit purchase is not required) (e.g., "Save \$1 off your next order"): There are many options for coding non-purchase-specific offers, including order thresholds or absolutely no requirement. It should be recommended to manufacturers to try to explicitly code the minimum spend requirement in the Primary Purchase Requirement field with a Primary Purchase Requirement Code of 2 to prevent a cash back scenario. This will allow POS to isolate any special 992 processing without affecting more offers than necessary.

While it is hoped that 992 frequency will greatly decrease, the use of 992 in the GS1 DataBar does present considerations and new challenges for POS:

3.1 Purchase Requirement Codes (PRC) and 992

• The Purchase Requirement Code (PRC) found on a qualifier with family code 992 has no function, unless it is 9-Cashier Intervention.

If the PRC is 0-units, 1-\$Threshold Item, 2-\$Threshold order, 3-lbs or 4-kgs it will be ignored by POS, as 992 bypasses any attempt to validate the purchase (making its PRC irrelevant). However, if the qualifier uses PRC 9-Cashier Intervention, it should be treated as requiring manual intervention, and not allow automatic validation of that qualifier. In effect, Cashier Intervention supersedes 992 Bypass Validation. (See more below re: Cashier Intervention.)

3.2 Purchase Requirements (PR) and 992

• The Purchase Requirement (qty) found on a qualifier with family code 992 has no function.

Like the PRC, the Purchase Requirement (qty) is ignored when POS bypasses automated validation due to family code 992 or when Cashier Intervention (PRC 9) is coded.

3.3 Additional Purchase Rules Codes (APRC) and 992

As 992 (excluding Cashier Intervention pairings; see below) is automatically "true", the combination of 992 with "or" Additional Purchase Rules Codes can effectively bypass validation of all offer qualifiers (including non-992):

- 0-Buy 1 A or 1 B or 1 C. If A=FC 992, then "Buy 1 A" is always satisfied. B and C will never be necessary to satisfy the offer.
- 1-Buy 1 A and 1 B and 1C. Here, a qualifier using 992 will not impact the validation of the other qualifiers, as all are required.
- 2-Buy 1A and (1B or 1C). If A=FC 992, then B and C are unaffected; one or the other must still be present. However, if B or C = 992, then the other will never be required; only the purchase of A will be needed to validate the offer.
- 3-Buy 1 of A, B and or C. This would appear to follow the same path as 0 (or), since no quantity can be associated with a 992 qualifier. Thus if either A, B or C is 992, the other qualifiers need never be present to satisfy the offer.

If possible, POS should leave 992 validations to last, thus making attempts to validate using any explicit CP/FCs when possible. The 992 qualifier should be a "last resort" to satisfying the offer requirements. (See 4.5 Additional Purchase Rules Code Processing for additional discussion on processing order and priorities.)

Following that logic, if a manufacturer is forced to use 992 for offers with more than 3 GS1 Company Prefixes, it would be recommended that at least two be listed explicitly, leaving the lesser-used to be automatically validated under the umbrella of the 992 in the final "catch-all" qualifier. (A single 992 would also work, but then even partial validation is skipped.)

3.4 Cashier Intervention

The GS1 DataBar structure redefines Cashier Intervention. The flexibility of the value construct eliminates the limitations of the value code table; in fact, Cashier Intervention is not coded within any of the value-related fields.

Instead, Cashier Intervention designation is now found in a component of the qualifier identification, Purchase Requirement Code (9). As such, a Cashier Intervention designation replaces a qualifier, as a qualifier cannot be defined without a Purchase Requirement Code. Manufacturers should encode Cashier Intervention purchase requirements with the intended, valid values for GS1 Company Prefix, family code, and Purchase Requirement.

While the cashier will make the final determination on coupon acceptance, there is value in the POS system performing validation of the items in order to assist in guiding the cashier towards a better acceptance decision. In addition, by encoding these fields with the values applicable to the actual purchase requirement, the POS systems will be enabled to track the use of the coupon and purchase requirements in order to avoid allowing multiple additional coupons from being accepted in error (over-couponing). Note that the Cashier Intervention Purchase Requirement Code use precludes the ability to define the unit of measure of the Purchase Requirement Code (e.g., pounds), so Purchase Requirements will all be assumed to be in units by the POS. As units are assumed, a Cashier Intervention Purchase Requirement of '0' is considered invalid.

Purchase Requirement Code 9 is expected to be primarily used in two specific scenarios:

- A combination offer where one of the purchase requirements is a "generic" from possibly multiple manufacturers and therefore cannot be validated. In the following 2 examples, the eggs and milk cannot be reasonably validated.
 - Buy National Brand Bacon and any variety of eggs and save
 - Buy National Brand Cereal and any variety of milk and save
- A high value purchase requirement which must be manually verified. In this case, the item can be specifically validated, however, because of the value of the coupon, the manufacturer wants to ensure the correct item is purchased.
 - Save \$20 when popular DVD Set is purchased
 - Save \$20 when high value Medi-Redi medical supplies are purchased

3.5 Cashier Intervention and 992

992 is effectively the opposite of Purchase Rules Code 9-Cashier Intervention.

In UPC-A, 992 was a bypass for purchase requirements, and Value Code 00-Cashier Intervention is a bypass for offer value lookup (used for values not included in the limited value code list). In practice, value code 00 is also regularly used to force cashier validation for high value or complex offers even when a suitable value code is available. When 00 is encountered, POS systems may/may not first validate at least one purchase matching the accompanying CP/FC before prompting for the offer value.

By this logic, Cashier Intervention would supersede 992-bypass validation (in that the 992 would not be processed). In the event that a qualifier contains both family code 992 and Cashier Intervention (PRC 9), POS would prompt for Cashier Intervention.

Effectively, 992 bypasses automated purchase validation and awards the offer value without any manual intervention. Cashier Intervention bypasses automated purchase validation, but requires manual intervention.

Q: Given this modified implementation of Cashier Intervention, what will be the likely prompt when a PRC 9 is encountered? The value is present in the offer (unlike in UPC-A). Will the

cashier be asked to confirm purchase – with POS then awarding the coded value? Or will it leave all entry to the cashier, as today?

A: The design committee's intent was that Cashier Intervention was ONLY to be used for validation of purchase requirements, and NOT the override of the Save Value amount. This is why the CI indicator is found in the Purchase Requirements Code field, and not a save value related field in the GS1 DataBar.

This is an intentional departure from the previous UPC-A Cashier Intervention coding, which was implemented to accommodate the limitations of the UPC-A Value Code table. The replacement of the Value Code table with explicit save values is intended to eliminate any need for manual entry of save values.

As a general rule, the cashier will not be able to alter the save value amount when one or more PRC 9 is encountered; only purchase confirmation will be entered. The only exception may be in the case of Free or Percent Off offers, where the referenced item is not found or must be confirmed (by POS design).

3.6 Free Offers and 992/Cashier Intervention

In prior UPC-A processing, 992 and Free Value Code combinations are problematic because POS has no means to identify the free item(s) and determine a rebate value, creating a manual task for the cashier (instead of the intended bypass).

The same issue exists in a GS1 DataBar: If, in a free offer, the qualifier referenced by the Save Value Applies To item (SVAT) contains family code 992 or is Cashier Intervention, POS will have no basis for automated offer valuation (992 bypasses validation, and CI requires manual validation). These scenarios will require similar prompts/procedures as are in place when POS encounters UPC-A 992/Free Item(s) Value Code combinations

Because Cashier Intervention is separated from the offer value in GS1 DataBar, a Free Offer/Cashier Intervention combination is now possible, however, as noted above, if the Purchase Requirement that SVAT applies to is Cashier Intervention, the process will be manual. (It is not in UPC-A, because the value can be free or Cashier intervention — not both.). Although Cashier Intervention was intended, the effect on POS processing is negatively impacted by combining it with a free offer as the manual validation/valuation is more complicated (and prone to errors) than a manually validated fixed value offer.

4. Offer Qualifier/Purchase Requirement Considerations

4.1 Primary Purchase Requirement (Qty) = 0

A Primary Purchase Requirement of = 0 creates a "filler" or null purchase requirement used to indicate the funder (Primary CP) without requiring purchase of items labeled with that funder's CP. In effect a Primary Purchase Requirement (Qty) = 0 means to ignore the Primary Purchase Requirements for the offer validation.

As such there are some considerations regarding the setting of the APRC and SVAT values when additional purchase requirements are present:

- For APRC=0, the expected condition of A *or* B *or* (*optionally*) C needs to validate the offer requirements as B *or* (*optionally*) C
- For APRC=1, the expected condition of A and B and (optionally) C needs to validate the offer requirements as B and (optionally) C
- For APRC=2, the expected condition of A and [B or (optionally) C] needs to validate the offer requirements as B or (optionally) C
- For APRC=3, this setting should not be used when the Primary Purchase Requirement (Qty) =0 (also see note below)

Unless the APRC = 3 (Any N of A, B or C; where 2nd and 3rd Purch Req are ignored), issuers should not intentionally code 2nd or 3rd Purchase Requirements = 0. While it will not interfere with POS processing, it does use space without serving any validation purpose.

4.2 Repeated Item Purchase Requirements

4.2.1 Same Purchase Requirement Code (UM)

If the same CP/FC/PRC item (PRC units, lbs or kg) combination appears in two or more qualifiers, the qualifiers are <u>cumulative</u>:

Here, "A" signifies the same CP/FC combination.

- "Buy 2 Units A and 3 Units A" would require 5 untagged units of "A".
- "Buy 2 Units A or 3 Units A" would require 2 untagged units of "A". (The lower requirement would satisfy the "or" condition.)

4.2.2 Different Purchase Requirement Code (UM)

If the same CP/FC combination is repeated, but with different UM (PRC), POS may have difficulty validating the requirements:

- "Buy 2 Units A and \$1 A" may be readily validated, but
- "Buy 2 Units A and 3 lbs A" may not be, because the weight of A may not readily be available by the POS system (assuming it is sold in units by the retailer).

4.3 Multiple Order Threshold Requirements

Dollars are not "tagged" like transaction items. If more than one Order Threshold (PRC=2) is included, they will be treated independently:

- "Spend \$10 and Spend \$5" will be met with a \$10 order (which satisfies both requirements).
- "Spend \$10 or Spend \$5" will be met with a \$5 order (which satisfies 2nd requirement).

Q: Additional discussion is needed. Can dollars be "tagged"? (Or, why not?) If so, then Order Threshold qualifiers can be treated just like item qualifiers (see 4.B.1, above), where qualifiers are treated cumulatively for "and" purchase rules. In the example above, "Spend \$10 and Spend \$5" would be met with a \$15 order. This may be more intuitive on its face and a more consistent interpretation across PRCs -- leading to fewer errors by issuers.

A: Multiple Order Threshold requirements will be considered an error on the part of the issuer, as there simply isn't a translation to a reasonable human-readable offer. As such, POS implementations will use their own "defensive programming" to best process these offers within the context of their systems. This will likely result in inconsistent validation across POS systems, which will be the responsibility of the coupon issuer.

4.4 Free Offer Purchase Requirements

For Free Offers (SVC=1, 2) Purchase Requirement INCLUDES Free Quantity

One Free X
Two Free X
Buy One X, Get One Free (Get one free when you buy two)
1 X in basket required
2 X in basket required
2 X in basket required

Buy Two X, Get Three Free 5 X in basket required (Get three free when you buy five)

4.5 Additional Purchase Rules Code Processing Order

It is critical that all POS systems process GS1 DataBar data elements in the same order across all installations to ensure consistent redemption of any given coupon.

There are several data elements that, when combined, could return different results depending on the processing order. Processing order should aim to minimize the number of elements that need to be processed in order to validate the coupon, while still maximizing the level of validation.

4.5.1 Satisfy Purchase Requirements

Processing of the Additional Purchase Rules Code (APRC) is intended to be applied based on the Primary Purchase Requirement (A which is always required) and if present the second and third optional purchase requirements (B & C). The POS solution should tolerate combinations of the optional purchase requirements (B or C) with APRC values that result in the same outcome as another APRC value. For example, APRC values of 1 and 2 with only the Primary Purchase Requirement coded (A) should behave the same as APRC=0. Additionally, APRC values of 1 and 2 with only two purchase requirements coded (A & B) should

- behave the same as APRC value of 1 with only the primary and second purchase requirements (A & B).
- <u>Process individual qualifiers as needed</u> until the APRC rule is satisfied by the order content. The order in which they are processed will be determined by the APRC and the presence of FC992, PRC9 (Cashier Intervention), and PRC2 (\$ Order Threshold).
- 1) APRC = 0 (A or B or C) B & C are optional fields; none or just B can be present
 - a. Qualifiers should be processed in order of explicit (can be validated) to not (CI/992). Per discussions in this document, when both 992 (Bypass Validation) and Cashier Intervention are present, and one can take precedence, Cashier Intervention should be used.
 - i. Qualifiers with PRC 0. 1. 2. 3. 4 and FC not 992
 - ii. Qualifiers with PRC9 (Cashier Intervention)
 - iii. Qualifiers with FC 992
 - 1. The first that can be validated will satisfy the requirements.
- 2) APRC = 1 (A and B and C) B & C are optional fields; none or just B can be present
 - a. All of the up to 3 purchase requirements are required, but Cashier Intervention should be kept until last to allow POS to validate (or bypass, if 992 and not CI) all possible qualifiers before finishing with Cashier Intervention.
- 3) APRC = 2 (A and (B or C)) B & C are optional fields; none or just B can be present
 - a. The known required qualifier (A) should be processed first, holding on a CI until either B or C can be validated (using the same order as in APRC=0 above).
- 4) APRC = 3 (Any N of A, B, C) B & C are optional fields; none or just B can be present APRC 3 does not use the PR or PRC in the 2nd or 3rd qualifier. As such, a Cashier Intervention or Dollar Threshold indicator (PRC 9 or 2) used in the 2nd or 3rd qualifiers will be ignored when APRC = 3. However, PRC 9 (CI) and 2 (\$order Threshold) will be used if found in the Primary qualifier.
 - a. If Primary PRC = 9, the offer requires Cashier Intervention, and no additional validation is necessary.
 - b. Else, If PRC = 2, only the primary qualifier PR will be used to validate if the Order Threshold has been met. (There is no function for either the Primary, 2nd or 3rd Company Prefix or family codes, nor for the 2nd or 3rd PRC or PR values.)
 - c. Else, if PRC is 0, 1, 3 or 4, the Primary PR (qty) and PRC will be used to validate the presence of the qualifying items defined by the Primary CP/FC, 2nd CP/FC and 3rd CP/FC. POS should first attempt to meet the requirements using non-992 CP/FC combinations. If they cannot be met by non-992 qualifiers, and one or more 992 is found, the requirements can then be considered met.
- 4.5.2 Determine Offer Value
 - Identify the SVAT (Save Value Applies To) Qualifier

Although the SVAT is coded in the GS1 DataBar, its value may be disregarded by POS depending on the APRC used.

1. APRC = 0 (A or B or (optionally) C), and

APRC = 3 (Any N of A, B, (optionally) C)

"Or" purchase rules make any particular qualifier optional. As such, there is no assurance that the qualifier indicated as the SVAT will be present to apply savings for the offer. One, two or three may be available. Two possibilities exist for determining the SVAT in this instance:

- 1. Using the first that is found (thus minimizing validation processing)
- 2. Identifying all present qualifiers, and if available, use that specified in the SVAT assignment, and if not available, applying a business rule (e.g., highest or lowest value to customer) to select the SVAT qualifier from the remaining options.

This obviously has a significant impact on some offers (e.g. Free, Percent Off, etc) and an inability to handle Free when APRC=0 (See Section 5.3.4).

Q: What is the preferred methodology? What pros/cons can be noted?

A: POS vendors will offer retail clients a variety of options for determining the SVAT Qualifier (including, but not limited to, first/last item, first/last qualifier and value juggling). Options available will vary by POS vendor, and implementation decisions will vary by retailer.

The SVAT Qualifier determination can have a significant impact on the offer value, especially in the case of Free or Percent Off offers, and to a lesser extent, Cents Off Item offers (where capping may apply). Issuers must be aware of the potential for value variation across POS implementations for certain GS1 DataBar coding combinations.

2. APRC = 1 (A and B and C)

As all are required qualifiers, the coded SVAT can and should be used.

3. APRC = 2 (A and (B or C))

If SVAT = 0 (A), the SVAT can and should be used. If it is 1 (B) or 2 (C), the methodology adopted for APRC 0 should be followed.

Calculate the rebate per the Save Value Code and the SVAT qualifier.

See comments in 5. Save Value Processing.

4.6 Support for Item Weight Purchase Codes (3-lb, 4-kg)

4.6.1 Weight based Purchase Codes (lb/kg) will not be applicable before variable-weight GTIN labeling is implemented.

In order to validate a variable weight product purchase, the item must be matched on its Company Prefix/family code combination. Until GTINs are used, these items will still be labeled with GS1 Prefix 2/PLU item numbers, precluding any matching. Items that are

identified with CPs and could be matched are not sold by weight (or cannot be assumed to have weights available conversion and validation consistently across retailers).

Variable weight purchase validation requires both CP (item identification) and weight requirements on the coupon, coupled with CP identification on the packaging. GS1 DataBar is half the solution; GTIN labeling is the other required element.

Until GTIN labeling is implemented, variable-weight qualifiers should continue to use family code 992. As established earlier, PRC and Purchase Requirement (qty) have no function with family code 992, as no purchase validation is attempted. The issuer must understand the assignments in these elements has no bearing on POS processing.

4.6.2 There are no standards for selling units across retailers, which may prevent validation.

A product can be sold by the each (units) or by the pound, for example. There is no way the issuer of a coupon can be sure that the Save Value in a variable measure, like lbs., is actually sold by the pound. That raises a concern that a purchase requirement coded in lbs or kg may not actually be sold that way by the retailer, meaning there may be no weight available to determine the purchase requirement.

4.6.3 Weights & Measures Printing Requirements

The POS provider must consider the printing implications related to Weights & Measures compliance for weight based coupons which apply to multiple packages of varying unit prices.

4.7 Order Threshold (Order Minimum) Requirements

4.7.1 Populating Order Threshold Qualifiers

One of an offer's [up to] three Purchase Requirements can be a minimum order total requirement – the entire checkout total, beyond the item(s) referenced on the order.

For such a qualifier, the Purchase Requirement Code is assigned 2: Threshold Cash Value of Total Transaction (Order Minimum). The Purchase Requirement used (Primary, 2nd or 3rd) to indicate the Order Minimum should be populated as follows:

Purch Req Order Minimum Value

Purch Req Code 2 – Threshold Cash Value of Total Transaction

Family Code 000

Company Prefix The funder's CP. If 2nd or 3rd, it can reference Primary CP

instead of listing the information again using VLI 9

This can be used alone (Save \$1 on any order over \$10) or combined with one or two other requirements (e.g., Spend \$10, and Buy One PointCare Shampoo, and Save \$1.00). In the latter scenario, the Shampoo purchase requirement would be described in a separate data field (a second Purchase Requirement).

Examples:

Offer: Save \$1.00 when you spend at least \$10.00

CP/FC: Funder's CP/000

PPR / PPRC: 1000 / 2-Order Threshold (Minimum)

GS1 DataBar POS Implementation Guide for Coupons Final v 3.0 Page 16 of 36

APRC: 0-Primary (N/A; so 2nd Qualifier)

SVAT: 0-Primary

Offer: Save \$1.00 off product X when your order total is

at least \$10.00

PPR / PPRC: Product X (CP/FC=Product X, PPR=1, PPRC=0-Units)

2PR / 2PRC: Order Minimum (CP/FC=Funder's CP/000, PPR=1000, PPRC=2-

Order Min)

APRC: 1-Primary and 2nd

SVAT: 0-Primary

Primary/2nd interchangeable if Product X is the funder's

The GS1 Company Prefix and family code are ignored by POS for a qualifier with PRC=2 Order Threshold. As they must contain some valid assignment, the funder CP and FC 000 can be used, but the issuer must understand the assignment has no bearing on POS processing.

4.7.2 Pairing Order Minimum Requirements with various Save Values

An offer containing an Order Minimum qualifier may or may not contain other qualifiers (see above). It is possible that an Order Minimum may be determined to be the "SVAT" qualifier for the purpose of determining an offer value.

NOTE: Several of the Save Value Code descriptions include the phrase "off item", implying use with CP/FC match to designate an item. However, nothing in the specification precludes the use (intended or otherwise) of the SV codes with non-"Item" qualifiers. For the purpose of the following, assume that an "Order Minimum" qualifier has been designated as the SVAT qualifier to be used for valuation.

- "Cents off Item" SVC applied to Order Minimum Qualifier (SVAT PRC2-SVC0)
 SVC6 preferred, but this would technically work.
- "One Free Item" SVC applied to Order Minimum Qualifier (SVAT PRC2-SVC1)
 The literal translation is "One Free Order Threshold", or a rebate of the order threshold value (but not the actual order total).
- "Two+ (N) Free Items" SVC applied to Order Minimum Qualifier (SVAT PRC2-SVC2)

The literal translation is "N Free Order Threshold", or a rebate of the (N * order threshold value). It is expected that POS would generate an exception for this combination.

• "Percent Off Item" SVC applied to Order Minimum Qualifier (SVAT PRC2-SVC5)

The literal translation is "% Off Order Threshold", or a rebate of the (% * order threshold value), but again, not the order total. This will likely cause consumer confusion, but is calculable.

This is a different value than an offer presented as "Save 5% off Orders over \$10" – which implies the % is off of the order total. Note that "Save 5% off Orders over \$10" cannot be encoded using the current guidelines and is mentioned here for illustrative purposes only.

Q: What will be the interpretation of "% off Order Threshold" at POS?

A: The code will be interpreted directly: "n %" (Save Value, Save Value Code) off of the indicated qualifier "\$N Order Threshold". "Save 5% off a \$10 Order Threshold" will be processed as 5% off of the \$10 threshold, or \$.50.

This coding will always result in a fixed amount. A more appropriate alternative is SVC 1 (Cents Off Item) or 6 (Cents Off Order), which more clearly reflects the savings amount.

It should be noted that there is no support in DataBar for "Percent Off Order Total" offers (e.g., "Save 5% on Orders Over \$10", or "Save 5% on Order Total when you buy A"). This is because a qualifier cannot be defined as an Order Total, but rather the Threshold the order must meet.

Q: What, if any, regulatory impact exists on % off order total?

A: Regulatory considerations are outside of the spirit and scope of the GS1 Coupon Guidelines. It is anticipated that each retailer implementation will factor in applicable constraints. Issuers should be aware that such constraints may exist for offers on certain categories and that redemption may vary accordingly.

- "Cents Off Order" SVC applied to Order Minimum Qualifier (SVAT PRC2-SVC6)
 Likely the intended pairing for SVC 6-Cents off Order Total, the Order Minimum allows the opportunity to specify an accompanying "minimum" (e.g., save \$1 off any order over \$10).
 - **Q**: If multiple qualifiers exist and "juggling" is used by POS to determine a rebate value (when "or" rules are used), will POS exclude Order Minimum qualifiers from the juggled options?

A: POS vendors will offer retail clients a variety of options for determining the SVAT Qualifier (including, but not limited to, first/last item, first/last qualifier and value juggling). Options available will vary by POS vendor, and implementation decisions will vary by retailer.

An Order Minimum need not be excluded from the satisfied qualifiers from a functional POS standpoint, as it is simply another value to use in the comparison: "Save \$1 when you Buy 1 Soup (\$.79) or Spend \$2 on Order".

POS could reasonably use "\$.79" and "\$2" in its juggling logic, if applicable.

5. Save Value Processing

5.1 Zero (0) Save Values

A Save Value = 0 will return a 0 offer value for Save Value Codes 0 (Cents off Item), 2 (# Free Items), 5 (Percent Off Item) and 6 (Cents Off Order). Only SVC 1 (Free Item) will award a non-0 value, but will not be limited by a Maximum Value. It is likely that a 0 SV is an error by the issuer.

Q: Will POS return an exception for Cashier intervention, or will this be a business rule setting?

A: An assigned Save Value = 0 will be considered an error on the part of the issuer, and POS will require cashier intervention to enter the value.

If a calculated Save Value = 0 (e.g., a percent-off that results in a value < .01, but not 0), the intent of the issuer is not known. POS will return a different exception (than an assigned 0), requiring some entry or confirmation from the cashier.

5.2 Cents Off Item Offers (SVC=0)

Cents Off Item (SVC=0) differs from Cents Off Order (SVC=6) with the distinction that Cents Off Order "may exceed qualifying item price". This implies that Cents Off Item will not exceed qualifying item price, or that POS will "cap" the Cents Off Item Save Value against the SVAT qualifying item.

When Cents Off Item (SVC = 0) applies to a dollar threshold purchase requirement (PRC = 1 Threshold \$ of Items, or PRC = 2 Threshold Transaction \$), the save value must not exceed the purchase requirement. This avoids coupons encoded to literally mean "Save \$10 when you purchase \$5 worth of xxx".

Q: If the SVAT item is ambiguous (e.g., "or" rule, SVAT item not purchased but other two are), will POS factor the "capping" into any juggling logic? Example: "Save \$1 When you Buy A (1.00) or B (\$.95) or C (\$1.05)", SVAT is A, but only B and C are present.

A: Each implementation will incorporate the POS vendor options and retailer business rules. (See 4.5). If some form of juggling is active, it is likely that capping, or the option to include capping, will also be included. Customer highest value possible...if juggling is used, it will continue to factor it in. Generally, the highest value will be awarded to the customer; in the example, \$1.00 with SVAT = C.

It should be noted that the determination of which Tlog item to associate with a redemption typically also considers, to some extent, other coupons or offers associated with the order. Juggling within a given offer is a new layer of complexity that DataBar brings to coupon processing.

Q: Will a "cap" calculation factor in any store coupons (revenue reductions)?

A: POS calculation will vary by retailer implementation of store policies.

Q: Will multiple purchase requirements (Item Retail * Purchase Requirement) be factored (e.g., Save \$1.00 off 2; item price = \$.49; cap = \$.49 * 2)?

A: POS calculation will use the full purchase requirement value (\$.98 in the above example.)

5.3 Free Offers (SVC = 1 (1 Free Item), 2 (2+ Free Items, per SV)

- 5.3.1 Free Quantities adopt the UM (PRC) of the SVAT item (or that determined to be SVAT by POS).
 - "Buy One lb A, Get One Free" equals one free lb of A.
 - "Buy One (unit) A, Get One Free" equals one free unit of A.
 - "Buy \$1 [worth of] A (PRC=1), Get One Free" equals one free dollar's worth of A.
- 5.3.2 When adopting the UM (PRC) of the SVAT item, the number format of the PRC is also adopted.

PRC	# decimals assumed	svc	sv	Result*
0 = Units	0	1	0	Get 1 unit "A" Free when you buy x units
1 = \$ Items	2	1	2	Get 2 units "A" Free when you buy x units
		2	200	Get \$2.00 "A" Free when you buy x.xx \$ worth
3 = # lb	2	1	0	Get 1.00 lb "A" Free when you buy x.xx lbs
		2	200	Get 2.00 lbs "A" Free when you buy x.xx lbs
4 = # kg	3	1	0	Get 1.000 kg "A" Free when you buy x.xxx kgs
		2	2000	Get 2.00 kgs "A" Free when you buy x.xxx kgs

^{*} Note that the purchase requirement must always include the "free" units, so in the examples above, the "x" values are always >= the free quantity

With SVC=1, POS must be sure to assume the decimals properly when determining the "1 free" value equivalent (e.g., assume 1.00, vs. 0.01).

With SVC=2, Issuers must take care to correctly assign the Save Value (# Free Items) in the proper format to correspond to the SVAT PRC (to avoid ".02" when "2.00" is intended).

5.3.3 SVC 2 (2/more Free Items) does, in fact, support fewer than 2 free items.

Systematically, a coupon can be coded with a SVC=2 and SV=1. (Assume PRC0-Units for example purposes.) This would translate to 1 Free Item. However, SVC=1 (1 Free Item) is preferred, as it allows a Maximum Value to be coded.

Decimal formatting allows SVC2 to be used to give less than one free item, when PRC = 1 (\$), 3 (lbs) or 4 (kgs):

- Buy \$1.00 A, Get \$.50 A Free (SVC=2, SVAT PRC=1, SV=50)
- Buy 1.00 lb A, Get .50 lb A Free (SVC=2, SVAT PRC=3, SV=50)

- Buy 1.000 kg A, Get .500 kg A Free (SVC=2, SVAT PRC=4, SV=500)
- 5.3.4 Free items should always be defined in a mandatory purchase qualifier per APRC.
 - APRC = 0 (a or b or c) should not be used.

Free Offers should not use APRC=0 (or) – not because of the uncertainty of the SVAT-designated item having been the purchased one (which juggling could arguably address) -- but rather because the purchase rules cannot be built properly. There is no means to properly validate that both the purchase requirement has been met and the free item is also present in the basket with this particular offer construct.

- APRC = 1 (a and b and c) can be used.
 - The SVAT should point to the free item. Only one of the up to three items can be the free item.
- APRC = 2 (a and (b or c)) can be used, as long as A is the free item.
- APRC= 3 (any N of a, b, c) can be used.

Assuming "Buy *any* A, B or C, Get One Free": The Primary Purchase Requirement will be set to Qty *any*+1 with SVC=1. Thus, *any*+1 of the items will trigger the offer. Since A, B, and C are considered equivalent, it is recommended that SVAT be set to A (SVAT=0). However the POS implementation could still choose to "juggle" to get/select the free value based on the desired criteria.

5.4 % Off Item (SVC = 5)

The percent specified for percent off offers ranges from 1 to 100%. Percentages outside of this range will be treated as invalid by the POS. Percents are expressed in whole number values only (no implied decimal digits).

Very careful wording of the human-readable offer is necessary on %-off offers.

The save value is dependent on both the item and its quantity; the SVAT in these offers effectively includes both (e.g., "Save 10% 1A" vs. "Save 10% on 5A")

The % off only applies to the SVAT item, and not all items on the offer.

- "Save 5% on A when you by A, B and C" can be coded.
- "Save 5% when you buy A, B and C" cannot be coded. The implication that the save value applies to all identified items cannot be supported by POS.

The % off applies to all of the SVAT item's Purchase Requirement, and no additional quantity.

- "Save 5% when you buy 3 A" will only rebate 5% of 3, even if 4 are purchased.
- "Buy 1 A, Save 50% on 2nd A" is not supported (unless another qualifier is used)
- "Save 5% on 3 A when you buy 3 A and 2 B and 1 C" is supported.
- "Save 5% on either 3A or 2B or 1C" is supported. For these coupons, the SVAT should be set to purchase requirement A and the POS will follow its usual selection logic to determine the matching items and award the percent off against the purchase requirement used to award the coupon.
- "Save 5% on 3 A when you buy 3 A or 2 B or 1C" is ambiguous and is not supported.

A coupon that is worded: "Save 5% on 3 A when you buy 3 A or 2 B or 1C" is ambiguous because OR coupons ignore SVAT and naturally award against the purchase requirement that is used to satisfy the offer. Specifying a specific purchase requirement to award against results in an ambiguous offer. In other words, if a coupon gives a customer a choice of buying A or B or C, it is incorrect to write/word a coupon to say '5% will be deducted from a specific item.'

In the scenario above, the wording implies that the customer can get 5% off of something they are not 'required' to purchase. That would not be supported by GS1, but a coupon worded 'Save 5% on 3A or 2B or 1C is supported'. The % off would award against whichever was purchased.

5.5 Cents Off Final Transaction Amount (SVC=6)

When Cents Off Final Transaction Amount (SVC = 6) applies to a transaction threshold purchase requirement (PRC = 2 Threshold Transaction \$), the save value must not exceed the purchase requirement. This avoids coupons encoded to literally mean "Save \$10 on a \$5 transaction".

5.6 Table of Valid Save Value Codes

Save Value Code	Save Value	PRC	"Unit"	Result	Comments	Sample Offer ("when you purchase" is encoded in the purchase requirements fields and is included as a sample here to provide a complete example, and is not meant to limit promotion capabilities)
0	Z.ZZ	Any	N/A	z.zz Cents Off	Cents Off Offer	Save 0.75 when you buy 2 bottles of ketchup
1	0	0	count	Get 1 (count) free	When using SVC1, Save Value 0, the actual savings amount cannot be limited by the coupon issuer.	Get 1 bottle of ketchup free when you purchase 2 bottles
1	0	1	\$\$_Item	Get 1 (\$1.00) free	This offer is always limited to saving \$1.00. Recommendation is to use SVC 0 Cents Off.	Get \$1.00 off ketchup when you purchase \$10.00 worth of ketchup
1	0	2	\$\$_Total	Get 1 (\$1.00) free	This offer is always limited to saving \$1.00. Recommendation is to use SVC 6 Cents Off Transaction.	Get \$1.00 off your transaction when you spend \$20.00
1	0	3	lb	Get 1 (lbs) free	When using SVC1, Save Value 0, the actual savings amount cannot be limited by the coupon issuer.	Get 1.00 lb of fresh ground coffee free when you purchase 5.00 lbs
1	0	4	kg	Get 1 (kgs) free	When using SVC1, Save Value 0, the actual savings amount cannot be limited by the coupon issuer.	Get 1.000 kg of fresh ground coffee free when you purchase 5.000 kg

Save Value Code	Save Value	PRC	"Unit"	Result	Comments	Sample Offer ("when you purchase" is encoded in the purchase requirements fields and is included as a sample here to provide a complete example, and is not meant to limit promotion capabilities)
				Get 1 (count) free up to \$\$\$	Save Value defines the	Get 1 bottle of ketchup free (up to \$1.99 value) when
1	\$\$\$	0	count	value	"free up to" amount.	you buy 2 bottles of ketchup
	777		000		Invalid code construct	, ou suj = somo o motomap
					as the save value must	
					be included in the	
					purchase requirement	
				Get 1 (\$1.00) free up to \$\$\$	for free offers. See sections 4.4 and 5.3.2.	
1	\$\$\$	1	\$\$_Item	value	Use SVC 0.	
	444		φφ_ποπι	raido	Invalid code construct	
					as the save value must	
					be included in the	
					purchase requirement	
				C = 1 (\$1 00) from the \$\$\$\$	for free offers. See sections 4.4 and 5.3.2.	
1	\$\$\$	2	\$\$_Total	Get 1 (\$1.00) free up to \$\$\$ value	Use SVC 6.	
					Save Value defines the	Get 1.00 lb of fresh ground coffee free (up to \$6.99 value) when you purchase
1	\$\$\$	3	lb	Get 1 (lbs) free up to \$\$\$ value	"free up to" amount.	5.00 lbs
						Get 1.000 kg of fresh
					Save Value defines the	ground coffee free (up to \$3.99 value) when you
1	\$\$\$	4	kg	Get 1 (kgs) free up to \$\$\$ value	"free up to" amount.	purchase 5.000 kgs
2	0	Any	J	Get 0 units free	Illogical - Invalid Code Construct (See section 1 DataBar Parsing)	Not allowed.

Save Value Code	Save Value	PRC	"Unit"	Result	Comments	Sample Offer ("when you purchase" is encoded in the purchase requirements fields and is included as a sample here to provide a complete example, and is not meant to limit promotion capabilities)
2	xxx	0	count	Get xxx count free	When using SVC2, the actual savings amount cannot be limited by the coupon issuer.	Get 3 bottles of soda free when you buy 10 bottles
2	Z.ZZ	1	\$\$_Item	Get \$z.zz free		Get \$5.00 off of razors when you purchase \$10.00 worth of razors
2	Z.ZZ	2	\$\$_Total	"N" Free Order Threshold	Illogical per Section 4.7.2 - Invalid Code Construct	Not allowed.
2	у.уу	3	lb	Get y.yy lbs free	When using SVC2, the actual savings amount cannot be limited by the coupon issuer.	Get 1.50 lbs of fresh ground coffee free when you buy 4.00 lbs
2	у.ууу	4	kg	Get y.yyy kgs free	When using SVC2, the actual savings amount cannot be limited by the coupon issuer.	Get 1.500 kgs of fresh ground coffee free when you buy 4.000 kgs
5	xxx%	0	count	xxx% off the purchase requirement quantity	%-off is limited to the purchase requirement quantity	Get 25% off of 3 bottles of soda
5	xxx%	1	\$\$_Item	xxx% off the purchase requirement based on the \$\$ purchased of the item	%-off is limited to the purchase requirement item cash value of the item(s)	Get 25% off of \$10.00 worth of ketchup

Save Value Code	Save Value	PRC	"Unit"	Result	Comments	Sample Offer ("when you purchase" is encoded in the purchase requirements fields and is included as a sample here to provide a complete example, and is not meant to limit promotion capabilities)
5	xxx%	2	\$\$_Total	xxx% off the purchase requirement of final transaction amount	%-off is limited to the purchase requirement final transaction value.	Get 25% off of \$50.00 transaction
5	xxx%	3	lb	xxx% off the purchase requirement in pounds	%-off is limited to the purchase requirement weight in pounds as represented in one or more consumer purchase packages.	Get 25% off of 3.00 pounds of fresh ground coffee
5	xxx%	4	kg	xxx% off the purchase requirement in kilograms	%-off is limited to the purchase requirement weight in kilograms as represented in one or more consumer purchase packages.	Get 25% off of 3.000 kgs of fresh ground coffee
6	z.zz	Any	N/A	z.zz Cents Off Transaction	Cents Off Transaction Offer	Get 5.00 Off Your Transaction when you spend \$50.00 or more
0	Z.ZZ	Any	N/A	z.zz Cents Off	Cents Off Offer	Save 0.75 when you buy 2 bottles of ketchup
1	0	0	count	Get 1 (count) free	When using SVC1, Save Value 0, the actual savings amount cannot be limited by the coupon issuer.	Get 1 bottle of ketchup free when you purchase 2 bottles

Save Value Code	Save Value	PRC	"Unit"	Result	Comments	Sample Offer ("when you purchase" is encoded in the purchase requirements fields and is included as a sample here to provide a complete example, and is not meant to limit promotion capabilities)
1	0	1	\$\$_Item	Get 1 (\$1.00) free	This offer is always limited to saving \$1.00. Recommendation is to use SVC 0 Cents Off.	Get \$1.00 off ketchup when you purchase \$10.00 worth of ketchup
1	0	2	\$\$_Total	Get 1 (\$1.00) free	This offer is always limited to saving \$1.00. Recommendation is to use SVC 6 Cents Off Transaction.	Get \$1.00 off your transaction when you spend \$20.00
1	0	3	lb	Get 1 (lbs) free	When using SVC1, Save Value 0, the actual savings amount cannot be limited by the coupon issuer.	Get 1.00 lb of fresh ground coffee free when you purchase 5.00 lbs
1	0	4	kg	Get 1 (kgs) free	When using SVC1, Save Value 0, the actual savings amount cannot be limited by the coupon issuer.	Get 1.000 kg of fresh ground coffee free when you purchase 5.000 kg
1	\$\$\$	0	count	Get 1 (count) free up to \$\$\$ value	Save Value defines the "free up to" amount.	Get 1 bottle of ketchup free (up to \$1.99 value) when you buy 2 bottles of ketchup
1	\$\$\$	1	\$\$_Item	Get 1 (\$1.00) free up to \$\$\$ value	Invalid code construct as the save value must be included in the purchase requirement for free offers. See sections 4.4 and 5.3.2. Use SVC 0.	

Save Value Code	Save Value	PRC	"Unit"	Result	Comments	Sample Offer ("when you purchase" is encoded in the purchase requirements fields and is included as a sample here to provide a complete example, and is not meant to limit promotion capabilities)
1	\$\$\$	2	\$\$_Total	Get 1 (\$1.00) free up to \$\$\$ value	Invalid code construct as the save value must be included in the purchase requirement for free offers. See sections 4.4 and 5.3.2. Use SVC 6.	
1	\$\$\$	3	lb	Get 1 (lb) free up to \$\$\$ value	Save Value defines the "free up to" amount.	Get 1.00 lb of fresh ground coffee free (up to \$6.99 value) when you purchase 5.00 lbs
1	\$\$\$	4	kg	Get 1 (kg) free up to \$\$\$ value	Save Value defines the "free up to" amount.	Get 1.000 kg of fresh ground coffee free (up to \$3.99 value) when you purchase 5.000 kgs
2	0	Any		Get 0 units free	Illogical - Invalid Code Construct (See section 1 DataBar Parsing)	Not allowed.
2	xxx	0	count	Get xxx count free	When using SVC2, the actual savings amount cannot be limited by the coupon issuer.	Get 3 bottles of soda free when you buy 10 bottles
2	z.zz	1	\$\$_Item	Get \$z.zz free		Get \$5.00 off of razors when you purchase \$10.00 worth of razors
2	z.zz	2	\$\$_Total	"N" Free Order Threshold	Illogical per Section 4.7.2 - Invalid Code Construct	Not allowed.

Save Value Code	Save Value	PRC	"Unit"	Result	Comments	Sample Offer ("when you purchase" is encoded in the purchase requirements fields and is included as a sample here to provide a complete example, and is not meant to limit promotion capabilities)
2	у.уу	3	lbs	Get y.yy lbs free	When using SVC2, the actual savings amount cannot be limited by the coupon issuer.	Get 1.50 lbs of fresh ground coffee free when you buy 4.00 lbs
2	у.ууу	4	kgs	Get y.yyy kgs free	When using SVC2, the actual savings amount cannot be limited by the coupon issuer.	Get 1.500 kgs of fresh ground coffee free when you buy 4.000 kgs
5	xxx%	0	count	xxx% off the purchase requirement quantity	%-off is limited to the purchase requirement quantity	Get 25% off of 3 bottles of soda
5	xxx%	1	\$\$_Item	xxx% off the purchase requirement based on the \$\$ purchased of the item	%-off is limited to the purchase requirement item cash value of the item(s)	Get 25% off of \$10.00 worth of ketchup
5	xxx%	2	\$\$_Total	xxx% off the purchase requirement of final transaction amount	%-off is limited to the purchase requirement final transaction value.	Get 25% off of \$50.00 transaction
5	xxx%	3	lbs	xxx% off the purchase requirement in pounds	%-off is limited to the purchase requirement weight in pounds as represented in one or more consumer purchase packages.	Get 25% off of 3.00 pounds of fresh ground coffee

Save Value Code	Save Value	PRC	"Unit"	Result	Comments	Sample Offer ("when you purchase" is encoded in the purchase requirements fields and is included as a sample here to provide a complete example, and is not meant to limit promotion capabilities)
5	xxx%	4	kgs	xxx% off the purchase requirement in kilograms	%-off is limited to the purchase requirement weight in kilograms as represented in one or more consumer purchase packages.	Get 25% off of 3.000 kgs of fresh ground coffee
6	z.zz	Any	N/A	z.zz Cents Off Transaction	Cents Off Transaction Offer	Get 5.00 Off Your Transaction when you spend \$50.00 or more

5.7 SVAT (Save Value Applies To)

• SVAT is ignored in "or" APRCs (0-a or b or c; 2-a and (b or c) when SVAT is b, c; 3-Any n of a, b, c).

A SVAT value with an "or" Purchase Rule is problematic in that it potentially refers to an item that will not be found in the basket: For example, the customer has purchased A and B and C – all different price points – any one will satisfy the requirements.

• Should/will explicit purchases (distinct CP/FC) be coded before less-defined (e.g., 992, PRC=9 CI), or will all be gathered and "juggled" for best value? Example:

If POS processes the Purchase Requirements in order when attempting to collect all fulfilled requirements, first testing the Primary Requirement, then 2nd, then 3rd, the 2nd and 3rd will not be interrogated if Primary is met.

However, the values of each (either by capping for a cents-off or by item price) cannot be compared for "juggling" if strictly processing in order.

 The SVAT field has no processing function with a Save Value Code = 6 (Cents Off Order) and will be ignored by POS.

5.8 Combining Cashier Intervention with Percent Off Item combination

Q: How will POS handle a Cashier Intervention/Percent Off combination? (e.g. Coded Purchase Rqmt Code = 9-Cashier Intervention, Save Value Code= 5 Percent off SVAT Item.) How will the cashier be expected to come up with a value?

A: There are certain combinations that POS software simply will not support, including the one above, because of the negative impact on POS processing. Generally speaking, any combination that requires the cashier to manually determine the value of the offer will return an exception. Resolution will be determined by individual retail implementation.

6. Expiration and Start Dates

It is expected that using expiration and start dates at validation will be implemented as it is today, as a business rule controlled by the retailer. Each date will also have a user-defined grace period that will allow for earlier starts, and later expirations, by the number of grace days for each. Any repercussions to the retailer will be resolved between the retailer and the issuer. Dates are indicated via the format YYMMDD and are all intended to represent 20YY years. Therefore, a start date of 991231 indicates that the coupon does not become eligible until 2099/12/31. Similarly, only valid dates should be encoded in the start and expiration date fields.

7. Retailer ID

The Retailer ID, used to indicate at which retailer (or retailer location(s)) the coupon can be redeemed. The spec allows for either a Retailer GS1 Company Prefix (CP) or Global Locator Number (GLN) to be used for the designation. The POS software will likely allow the retailer to use whichever data is preferred for each installation. In the case of the GLN, it will require the POS system to recognize the store location and its "parent" locations by using the leading digits to match the coded offer.

The recommended method for matching the CP or the GLN in this field to a POS configuration value is to apply a left to right compare using the length of the Retailer ID field on the coupon to that in the POS configuration value. In the event a retailer's CP is used, the matching logic would be similar to that of matching the coupon product's CP against the product's UPC/EAN/GTIN in the customer's order. For GLN, the compare will be controlled based on the length of the coupon GLN value allowing for a total parent level, the specific retail location (e.g.,ngle store), or levels in between depending on the structure of the retailer's GLN.

8. Miscellaneous Items

8.1 Store Coupon Flag

The Store Coupon Flag is intended to allow retailers to create Store Coupons (traditionally PLUs) using the GS1 DataBar construct, with the Flag being used to address net sales and tax calculations.

- **Q**: What, if any, limitations will a Store Coupon designation have on the balance of the DataBar interpretation?
- A: There is a desired interdependency between the Store Coupon flag and the Retailer GLN/CP. Although the Specification does not explicitly indicate a relationship between the fields, nor any related requirements, it is reasonable to expect that a retailer who issues a store coupon would only want that coupon redeemed in their locations. It is likely that POS implementations will offer the option of requiring a Retailer GLN/CP when the Store Coupon flag is true. It is strongly recommended that in practice, issuers of Store Coupons always use the Retailer GLN/CP field.

For Store Coupon Flag values greater than one (>1), the implementation treatment will be Retailer/POS Solution dependent. This approach will allow each Retailer to ensure treatment of these coupons is consistent with their electronic marketing/coupon capability, if present. For coupon issuers whom may utilize this particular feature across multiple retailers, be aware that there may be differences in redemption behavior. As such it is advisable to ensure the language that is printed on the coupon is consistent with the specific retailer's implementation. In the event of acceptance of "other retailer" store coupons, the redeeming POS rules will govern the treatment.

8.2 Family Code Structure

The family code structure previously in use for the GS1 Prefix 5/UPC-A coupons has not changed with the implementation of the GS1 DataBar Coupon Specification. All present capabilities with wildcard validation are expected to work the same with this implementation.

9. Acknowledgments

We would like to thank the following companies for their contributions:

Ahold USA
Fujitsu America, Inc.
IBM
Inmar
NCR Corporation
Pinpoint Data, LLC
Retalix Ltd.
Sweda Corporation