

The Do's and Don'ts of APL Construction and Maintenance

Helpful suggestions shared with State agencies

UPC Collection Methods

- **You could acquire UPC lists from retailers. Sounds easy, right!**
 - *Instant list looks impressive.*
 - *Did you get a full UPC or just 10 or 11 digits?*
 - *If you get 12 digits, is it a full 12 digit UPC or a 13 digit without the check digit?*
 - *Is that UPC really a WIC approved cheese or some other item that is not WIC approved?*
 - *Did you end up with a list that you have confidence in... OR*



UPC Collection Methods

- **Or you could do actual product collection in the stores.**
 - Using a collection tool designed for a complete job.
 - *Scanning bar codes on known WIC approved products*
 - *Assigning Cat's and Subcat's when product is added*
 - *Scanning UPC-E's (8 digit), being expanded to 12 at time of collection.*
 - **At the end of the day you have confidence in what will be in your APL**



Cat and Subcat Considerations

- **UOM is a key focus for products**
 - Use UOM that make sense to the shopper and keep math to a minimum when possible.
 - *Example: Cat 53 & 54 Juice.*

Choice, container or ounce?

Container much easier to keep track of for shoppers

If you use ounce, did you take in to account using the reconstituted quantity for frozen Juices, 11.5/12 vs 48/64.

Cat and Subcat Considerations

Category	Subcategory	Quantity
02 - Cheese or Tofu	001 - Cheese	16.00 OZ
03 - Eggs	000 - Eggs	1.00 DOZ
05 - Breakfast Cereal	000 - Breakfast Cereal - Whole and Non-whole Grain	36.00 OZ
06 - Legumes	000 - Dry Beans or Peanut Butter	1.00 CTR
16 - Bread and Whole Grains	000 - Whole Wheat Bread, WW Tortilla, WW Pasta, Brown Ri	32.00 OZ
19 - Fruit and Vegetables Cash Value Benefit	000 - Fruits & Vegetables - Cash Value Benefit	9.00 \$\$\$
50 - Yogurt	001 - Yogurt - Whole Milk	32.00 OZ
51 - Milk Whole	001 - Whole Milk	3.00 GAL
54 - Juice All	000 - Juice - Bottled/Concentrate	128.00 OZ

Category	Subcategory	Quantity
02 - Cheese or Tofu	000 - pound(s) WIC-allowed Cheese	1.00 LB
03 - Eggs	000 - dozen WIC-allowed Eggs	1.00 DOZ
05 - Breakfast Cereal	000 - oz. (or less) WIC-allowed Cereal	36.00 OZ
06 - Legumes	000 - WIC Peanut Butter OR Dry Beans OR 4-Can Beans	1.00 CON
16 - Breads/Whole Grains	000 - (16 oz) WIC-allowed Whole Grain Item	2.00 LB
19 - Fruits & Vegetables Cash Value	000 - dollars Fresh or Frozen Fruits and Vegetables	9.00 \$\$\$
52 - Milk Low Fat/fat free	000 - gallon(s) Fat Free/Skim or 1% milk	3.00 GAL
54 - Juice - 64 oz.	000 - (64 oz) container WIC-allowed 100% Juice	2.00 CON

Produce UPC Mapping

- **Partial mapping vs full mapping**
 - Partial mapping (many to one) = 4469 (generic PLU)
 - Full mapping (one to one) applies to apples
- **Expanding the mapping from non-standard and random weight to all WIC approved produce.**
 - Advantage – approved WIC produce items can be sold as soon as they hit the store, eliminating the wait time to have them added to the APL
 - Advantage - Less work for State agency in having to manage all these additions.
 - Dis-advantage – Risk goes up slightly for mapped items not being WIC approved.

The effect of items in the WIC APL not following TIG specs

Examples of instore issues experienced

Why does this matter?

If we look at this as a journey path - each of us has our daily processes to go through.

- ▶ State Staff doing APL management or state creating their first APL
- ▶ Retailer/POS updating their stores with the new APL
- ▶ WIC Participant trying to purchase food for their family.

Your journey paths all intersect at one important point - at the cash register, in a WIC transaction.

If Retailer/POS and State APL do not follow the rules then the participant experiences a pain point.

This is avoidable and hopefully this will shed some light on how to avoid issues.

Check Digits in the TIG

The 2018 TIG states that the Check digit is mandatory and the length of the PLU is 5 or 6.

Data element name	Format	Condition	Notes
UPC/PLU data	PIC 9(17)	M	
UPC/PLU indicator	PIC 9 (1)	M	
UPC or PLU	PIC 9(15)	M	
UPC/PLU check digit	PIC 9(1)	M	
UPC/PLU data length	PIC 9(2)	M	UPC data length, including check digit and leading zero, is 12, 13 or 14. <u>PLU length is 5 or 6 including the calculated check digit.</u>

Different POS may treat the UPCs/PLUs differently

The state APL is used by a lot of different POS systems, not all of which store information the same way.

Some POS vendors may store the entire UPC/PLU with the check digit

- ▶ 00000000000040112
000000000000940115

Other POS Vendors may strip off the check digit

- ▶ 0000000000004011
00000000000094011

Why does this matter to you?

With or Without check digit?

- ▶ Ex. A state APL included items with and without check digit. (abridged example)
- ▶ The **blue** digits represent the length of the PLUs. **Orange** is the PLU Indicator

D40067921344**1**000000000000**4011**FRESH.....20150812000000000**4**11
D40067931344**1**000000000000**40112**FRESH.....20150812000000000**5**11
D40095571344**1**000000000000**94011**FRESH.....20150817000000000**5**11
D40095581344**1**000000000000**940115**FRESH.....20150817000000000**6**11

The 2018 TIG states that the Check digit is mandatory and the length of the PLU is 5 or 6.
This means that only the PLU codes in **green** are following the TIG.

Check digits and how the different POS systems might treat them

1. POS system which keep the entire PLU field INCLUDING CHECK DIGIT

0000000000004011
00000000000040112

00000000000094011
000000000000940115

2. POS system which only the PLU number WITHOUT CHECK DIGIT

000000000000401
0000000000004011

0000000000009401
00000000000094011

Confusion starts when the POS systems try to match these APL items with items in the POS system.

Let's see what can happen...

Having two entries for each item can create issues at the POS

- ▶ Stores are free to use 2 or 3 or 5 digits PLU codes (without check digit) for their own purposes since that is not a valid IFPS range. What if the store actually defined a non-food item as PLU code 401? or 9401
- ▶ Regardless of how the POS treats the code, there is a possibility for conflict. We have seen stores experiencing this situation. Their non-WIC item code 401 got flagged as WIC because of this.
- ▶ This means that the POS would try to claim that item as WIC and the request would be rejected by the WIC host and the store would not understand why.
- ▶ Rejected items must be investigated - It was only then did we find out the reason for the issue.

Same PLU code, same length: Different formats

D40067931344100000000000040112FRESH.....201508120000000000511
D40095571344100000000000094011FRESH.....201508170000000000511

This example shows another confusion resulting from including items with and without check digits.

What should the POS do with these two items? Remove the check digit or accept them as is? One is regular Bananas with check digit, the other is organic bananas without the check digit.

One of them will be wrong no matter how the POS treats them.

No check digit on all - Check digit on some

- ▶ A merchant, whose system removes the check digits, experienced an APL which had all the required items but with no check digit. SOME of the PLUs also existed with check digit.
- ▶ The result was a store in which some WIC items sold correctly and some which were not flagged as WIC eligible because the PLU for that item did not exist in the APL with a check digit. To that system, the item was effectively not in the APL.
- ▶ APL Entry:
D40067921344100000000000004011FRESH.....20150812000000000411
- ▶ The system sees this item as: 0000000000000401 THIS IS NOT A WIC ITEM

Border store: APLs are different

- ▶ A merchant on the border of two states - one state has a full list of IFPS PLUs with check digits, the other state is only supporting Mapping to PLU 4469.
- ▶ Depending on the state, the POS would have to treat the item differently.
 - ▶ State #1: Bananas claimed as 4011
 - ▶ State #2: Bananas claimed as 4469
- ▶ A client from one state would need the POS to use the actual PLU # whereas a client from the other state would need the POS to use 4469.
- ▶ Not all Retailer/POS may be ready for this situation
- ▶ Implementing the full IFPS PLU list, as is required by FNS would prevent this issue.

Category vs SubCat: Units of measurement

- ▶ Ex. It is not a problem to have a Category measured in Gallons and a sub-category measured in Quarts - provided that the sub-category is NOT set to broadband.
- ▶ Customer complained that they did not get the correct qty taken from their card.

			CATEGORY		SUB_CAT		UOM	BROADBAND
D6	Category		52	1% 2% FAT FREE MILK	000	1% FF SKIM ACIDOPHILUS*	GAL GALLON	
D4	Sub-Category	MILK	52	1% 2% FAT FREE MILK	106	NONFAT DRY MILK	QT QUART	0
D4	Sub-Category	MILK DRY 9.6 OZ BOX	52	1% 2% FAT FREE MILK	106	NONFAT DRY MILK	QT QUART	1

- ▶ A customer with 52000 and 52106 on their card who buys 1 Quart of “MILK DRY 9.6oz box” will get 1 unit removed from their card. But is it one Gallon or one Quart? It depends on which category the milk gets redeemed against. This should not happen.
- ▶ If you have different measurements between cat and sub-cat then the sub-cat should NOT be broadband in order to avoid this problem for the customer.