



# The ABCs of UCC Standards: An Overview of EAN.UCC Product and Logistics Identification InsightU Class #A205

Presented by

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# "EAN.UCC Core Technologies"

## Data Structures

### GTIN

- UCC-12 (U.P.C.)
- EAN/UCC-13
- EAN/UCC-14
- EAN/UCC-8

### SSCC

Application Identifiers

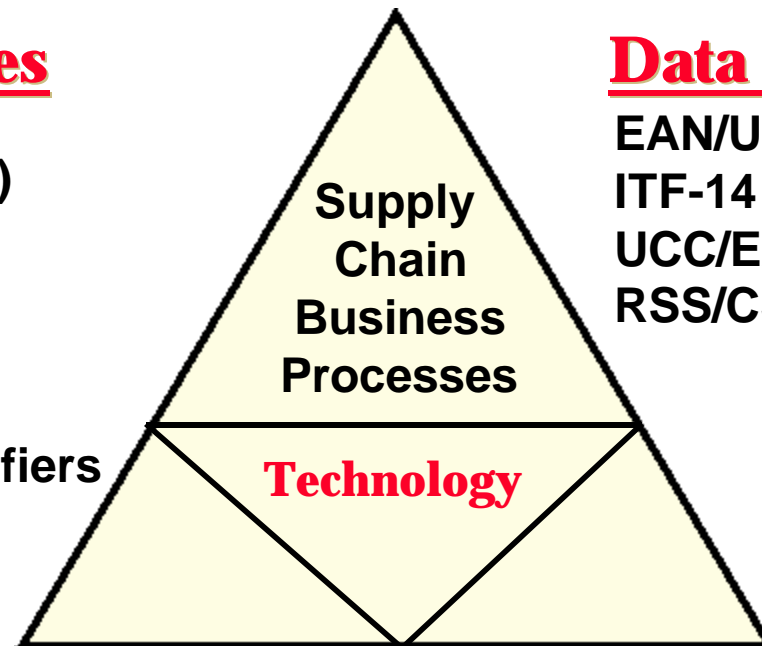
## Data Carriers

EAN/UPC (item)

ITF-14 (case)

UCC/EAN-128 (case/pallet)

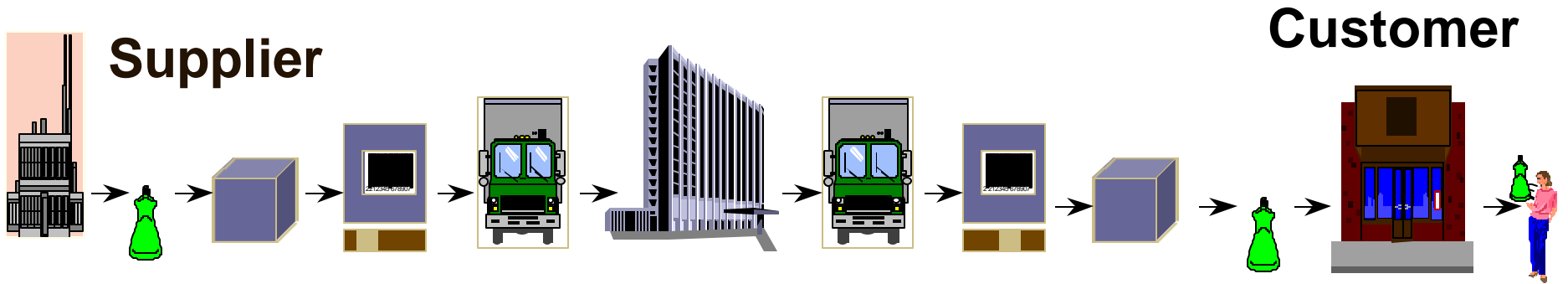
RSS/CS (not addressed here)



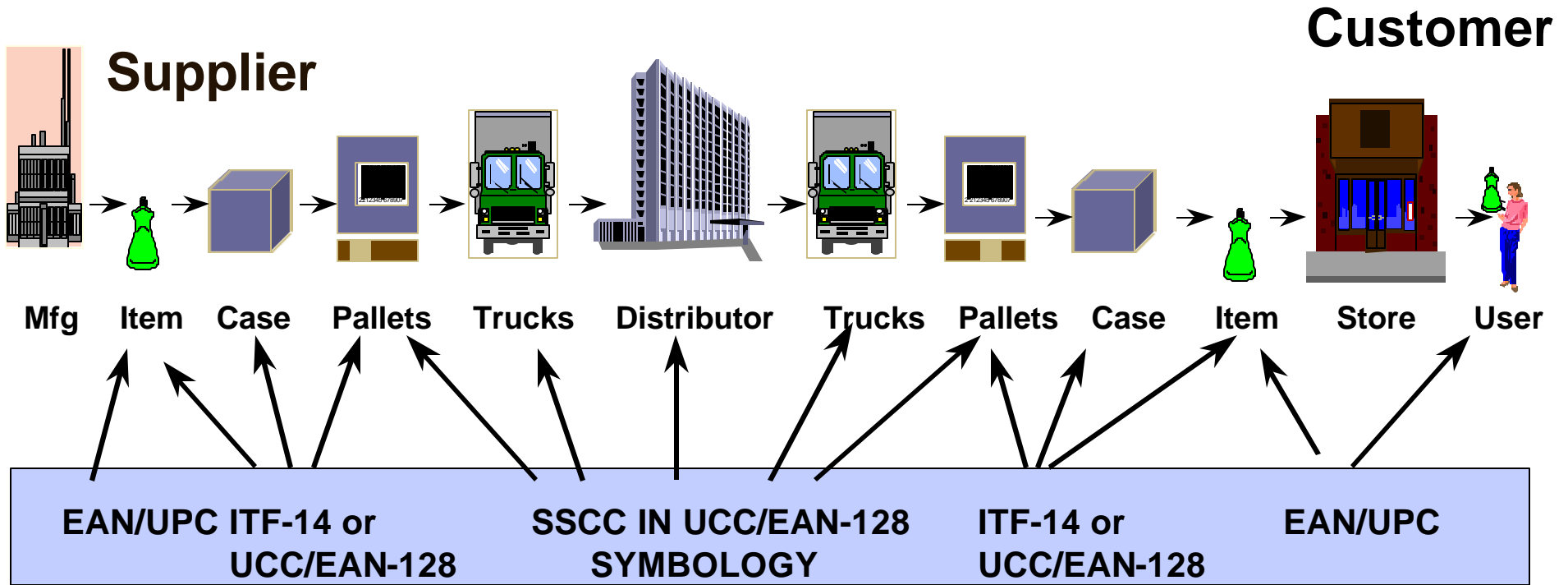
## Electronic Commerce/EDI

Application Standards and XML

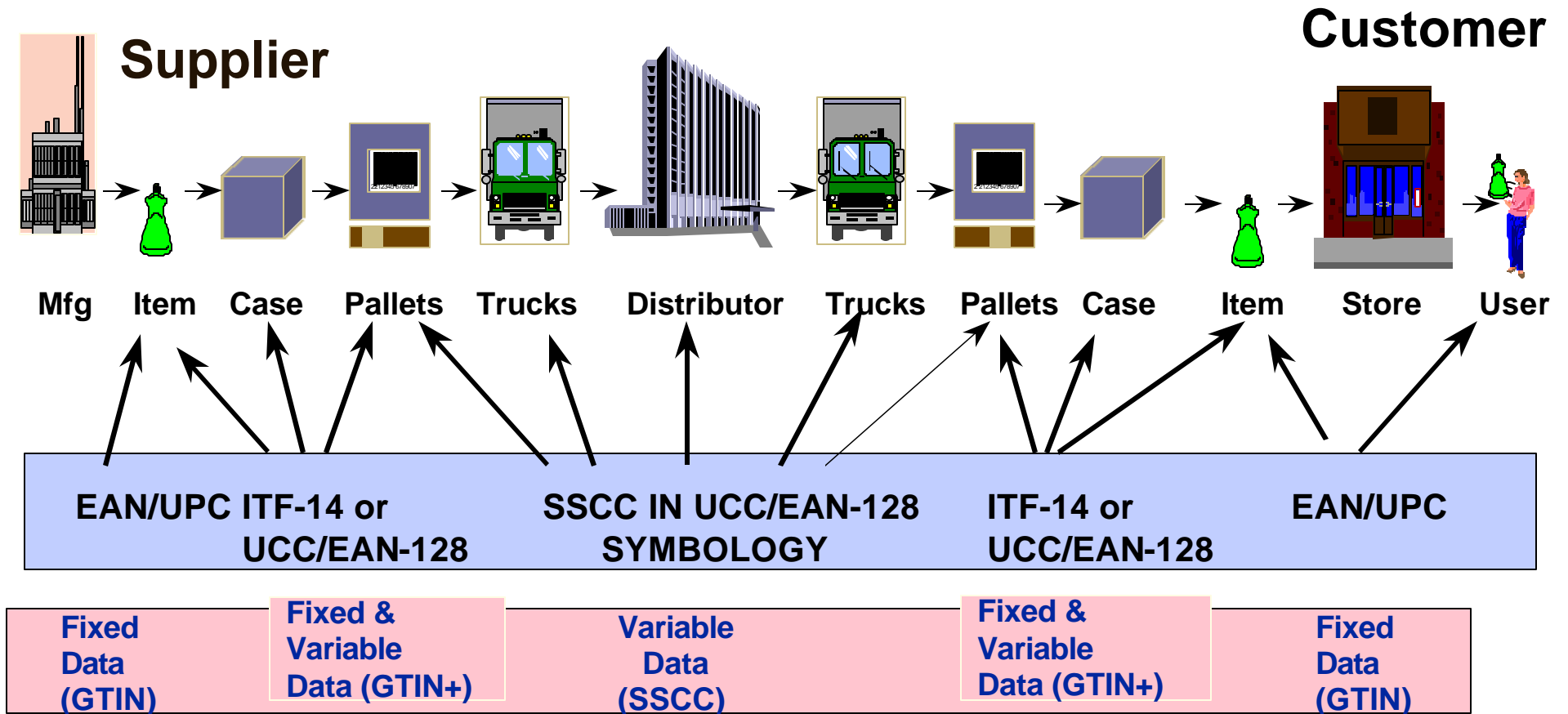
# Physical Goods & Data Flow



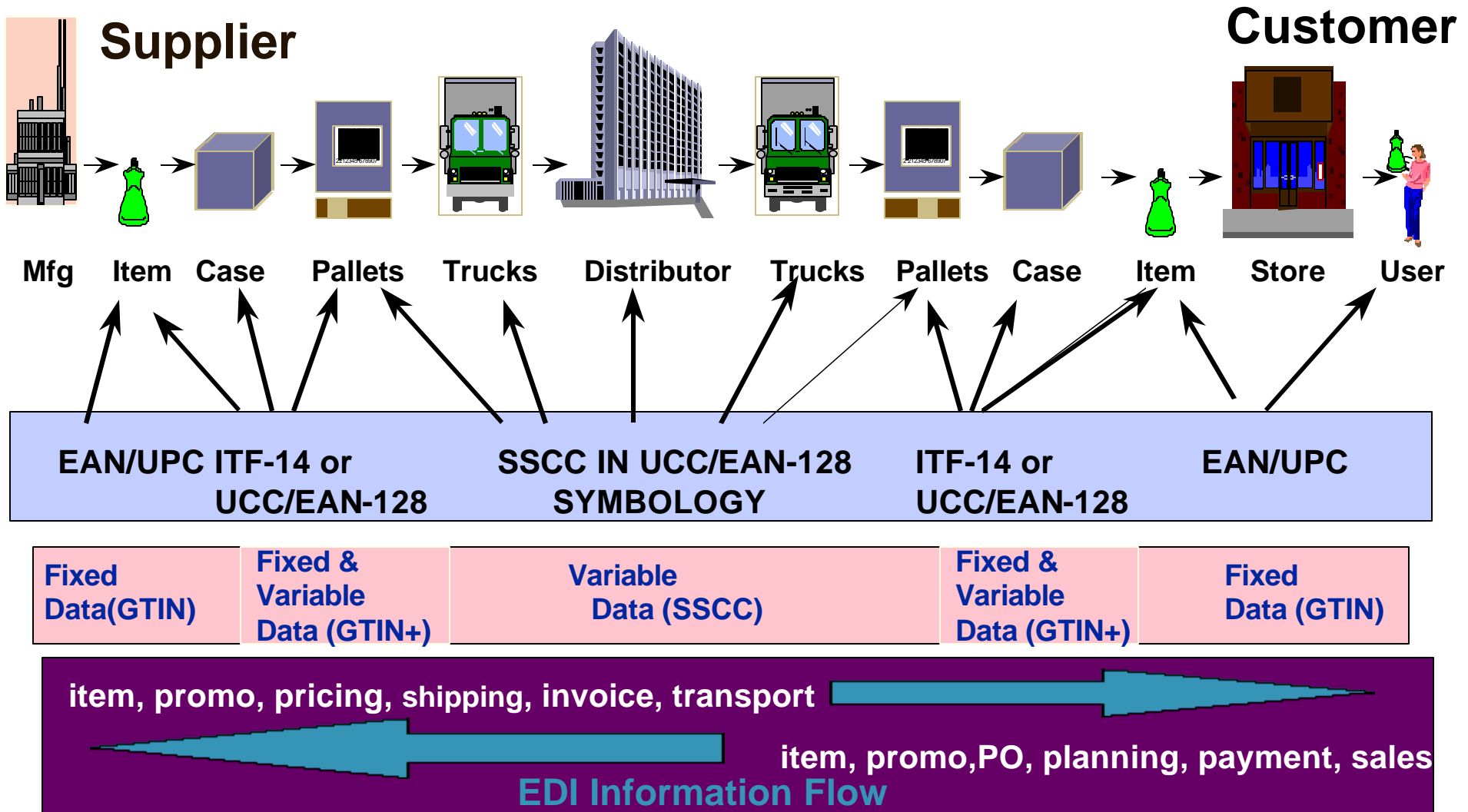
# Physical Goods & Data Flow



# Physical Goods & Data Flow



# Physical Goods & Data Flow





# GTIN Requirements

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- Item Level
  - UCC-12 (U.P.C.)
  - EAN/UCC-13
  - EAN/UCC-8
- Carton/Logistics Level
  - EAN/UCC-14
- SSCC (NOT a GTIN, used for Logistics)



# Symbology Requirements

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- EAN/UPC
  - UPC-A
  - UPC-E
  - EAN-13
  - EAN-8
- ITF-14 (Interleaved 2 of 5, I 2 of 5)
- UCC/EAN-128
- RSS (Reduced Space Symbology) – not addressed in this session



# GTINs (Data Structures) and Symbols (Data Carriers)

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## Bar Code Symbols CARRY GTIN Data Structures

- Both UPC-A and UPC-E carry UCC-12 (structure)
- EAN-13 carries EAN/UCC-13 (structure)
- EAN-8 carries EAN/UCC-8 (structure)
- Both ITF-14 and UCC/EAN-128 carry EAN/UCC-14 (structure)
- UCC/EAN-128 carries SSCC (not a GTIN)

# UPC-A Symbol

- The symbol contains 30 bars and 29 spaces.
- Carries UCC-12 GTIN Structure
- UCC Company Prefix
- Item Reference Number
- Check Digit



# EAN-13 Symbol

# EAN-8 Symbol



Think of these “Unit Level Boxes” as your product at its lowest level



Your Individual Product's Bar Code Symbol is  
**UPC-A** *intended to be scanned at POS*

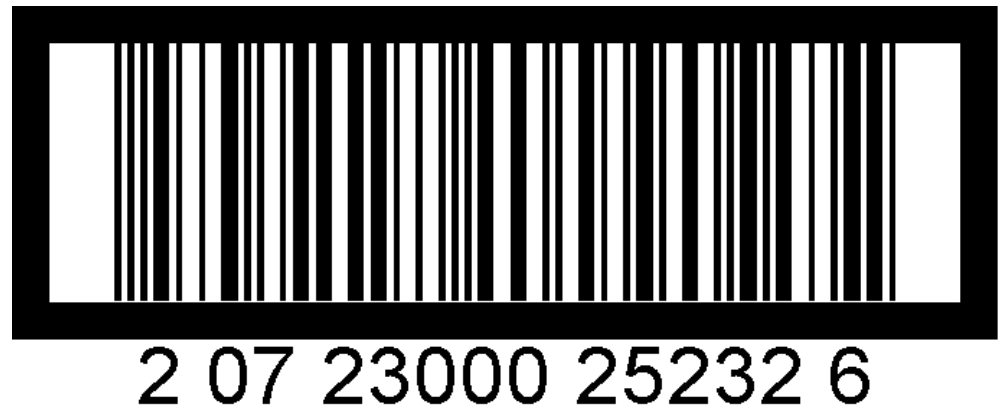
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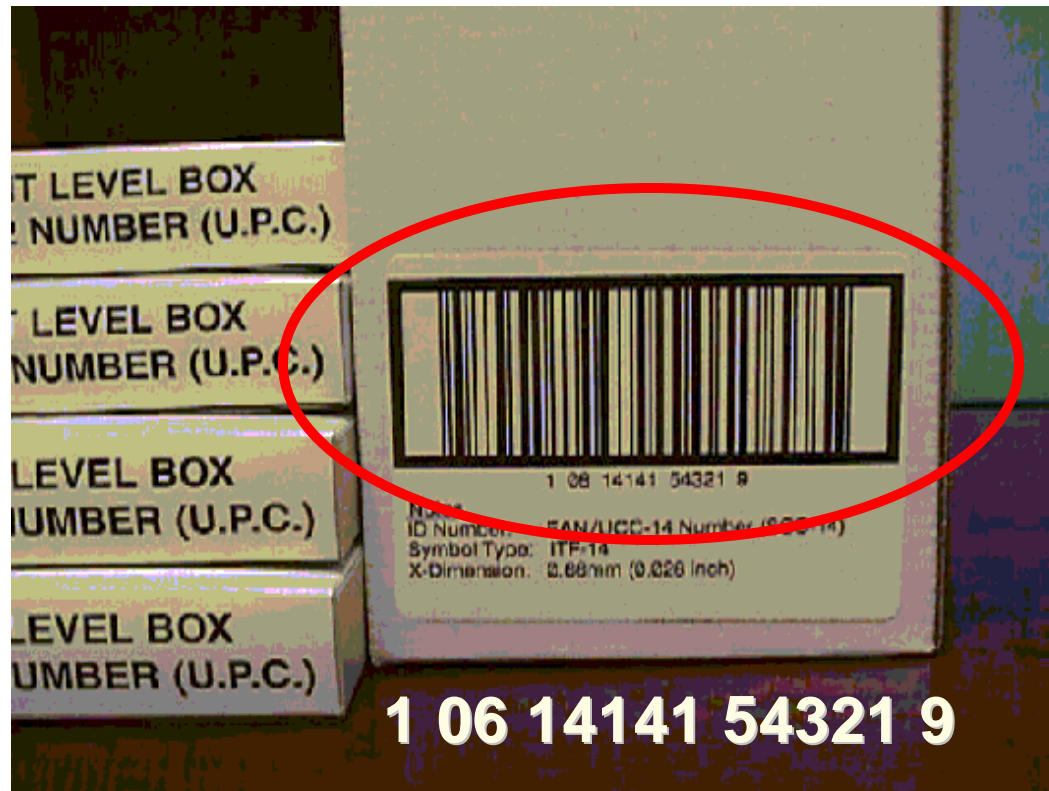
# ITF-14 Symbol

(UCC's and EAN International's use of the Interleaved 2 of 5 Symbology)

- The ITF-14 **symbol** is frequently printed direct on corrugated.
- Carries EAN/UCC-14 GTIN **Structure**
- Indicator digit
- UCC Company Prefix
- Item Reference Number
- Check Digit



## 4 Pack - **ITF-14** *Intended to be scanned at Receiving Dock*

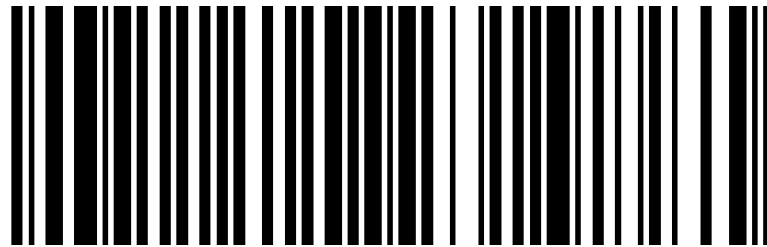


**ITF-14 is used at the Receiving Dock  
with fixed mount scanner**

# UCC/EAN-128 Symbol

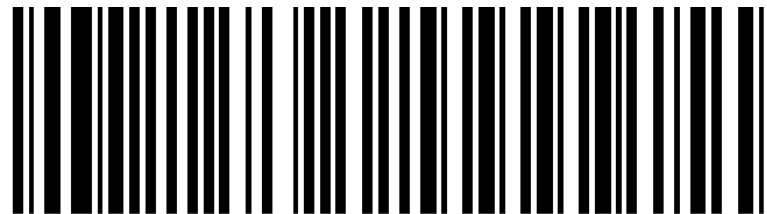
- The UCC/EAN-128 **symbol** is label-based.
- Carries both EAN/UCC-14 and SSCC structures.

EAN/UCC-14



(01) 3 00 12345 67890 6

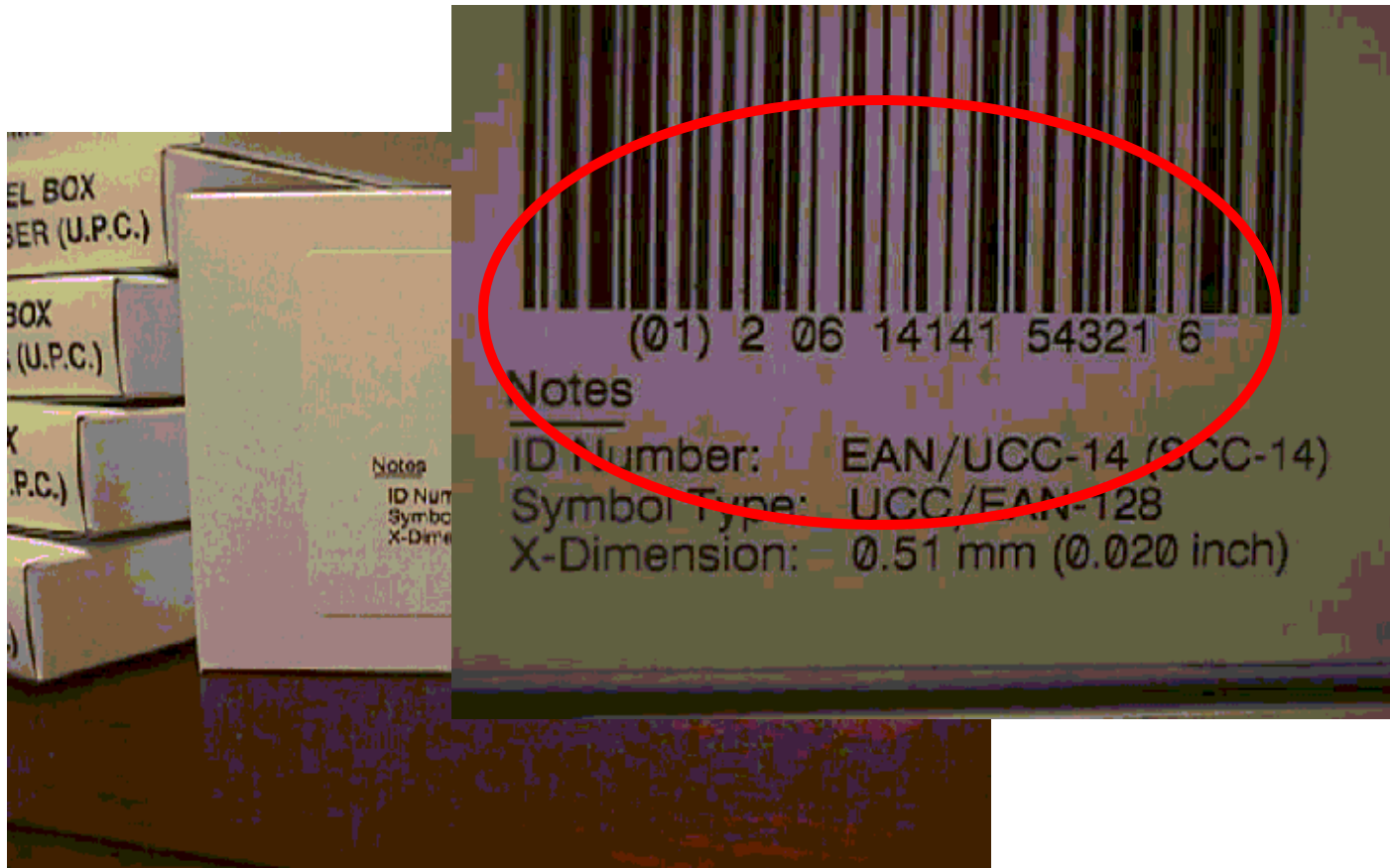
SSCC



(00) 30723000 55555555 4

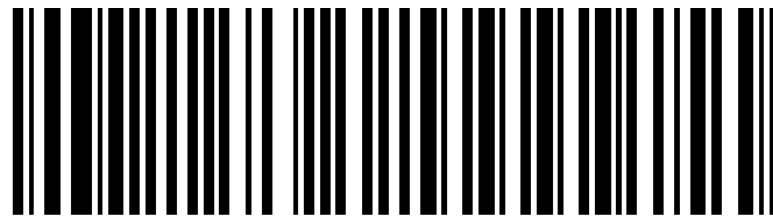
# 6 Pack - **UCC/EAN-128** *Intended to be scanned at Receiving Dock*

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# SSCC

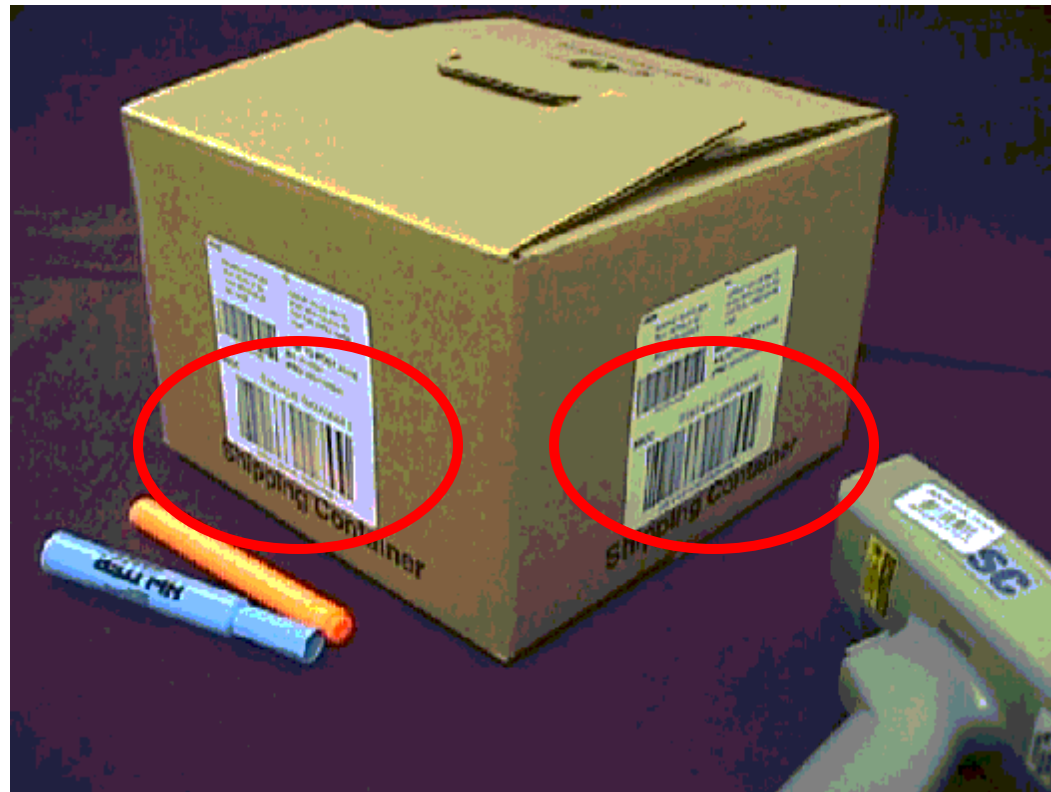
- Application Identifier (00)
- Extension digit
- UCC Company Prefix
- Serial Reference Number
- Check Digit
- Used in conjunction with EDI/ASN



(00) 30723000 55555555 4

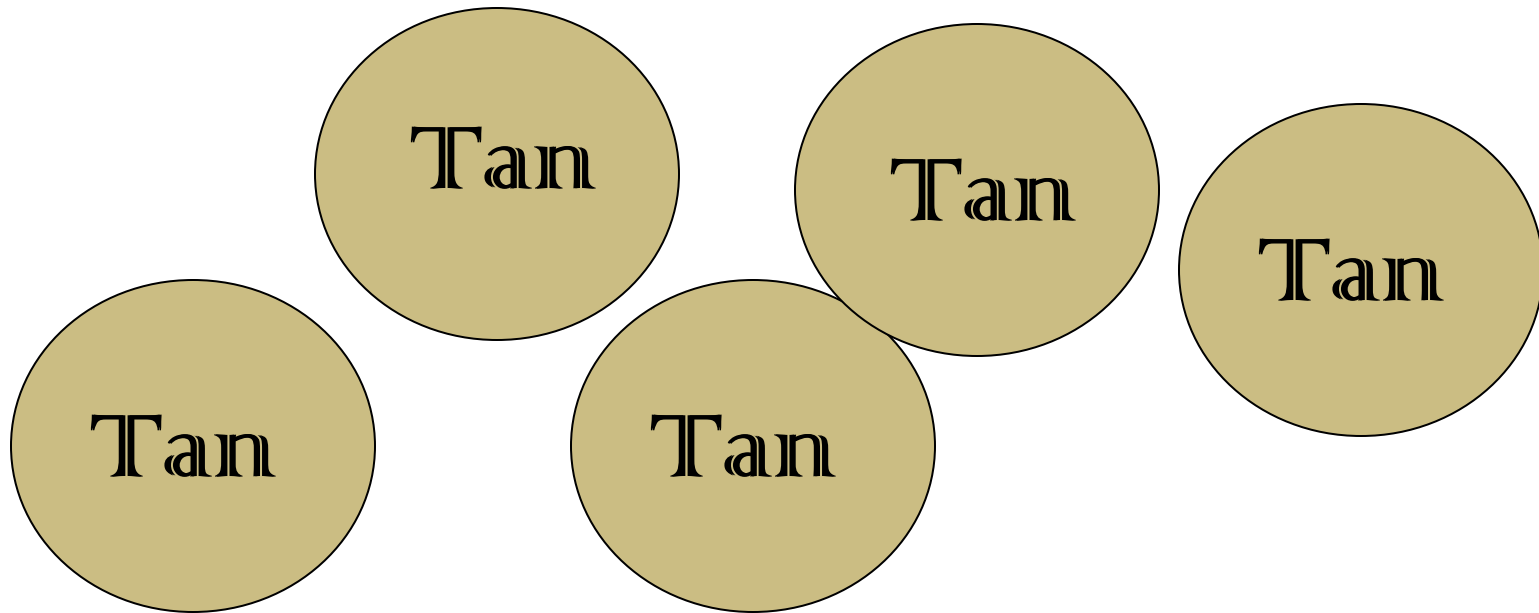
# “Logistics Unit” UCC/EAN-128 *Intended to be shipped*

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# EAN/UCC-14 (GTIN)

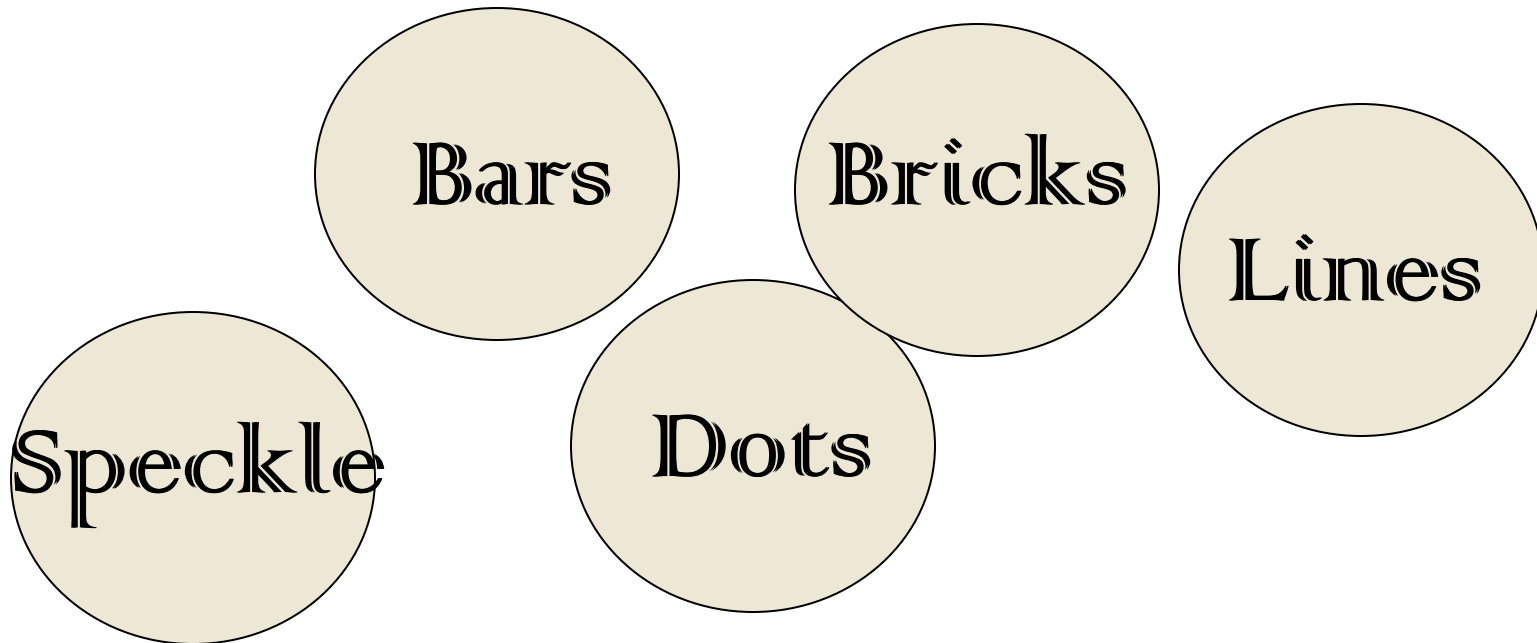
- “Give me three, it doesn’t matter which three”



# SSCC (NOT a GTIN)

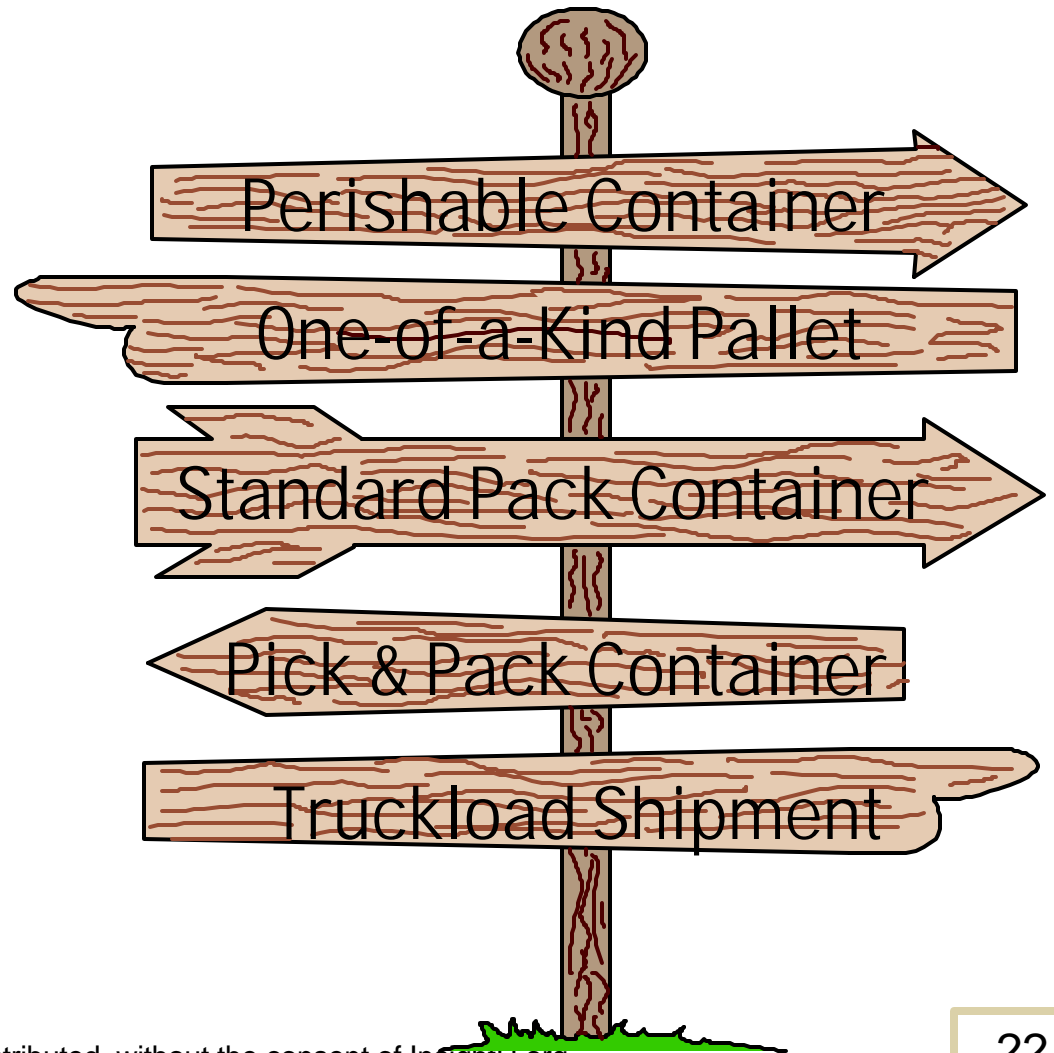
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- “I need to be able to identify **that one** specifically”



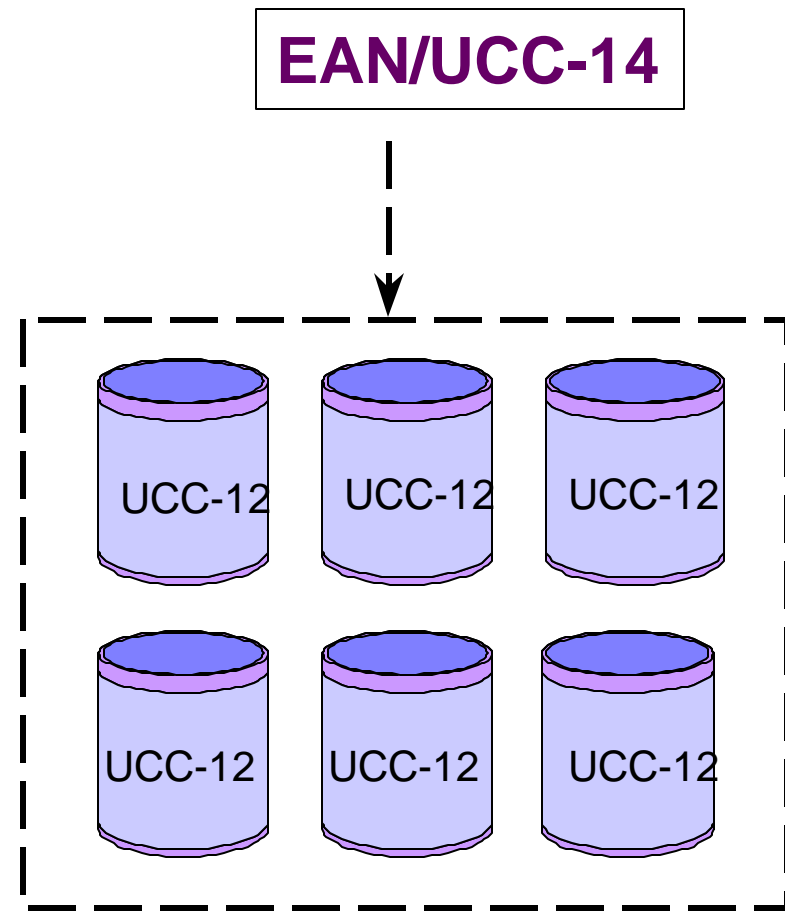
# Which Code Do I Use and Where?

- Different situations call for different approaches - but they all fit together



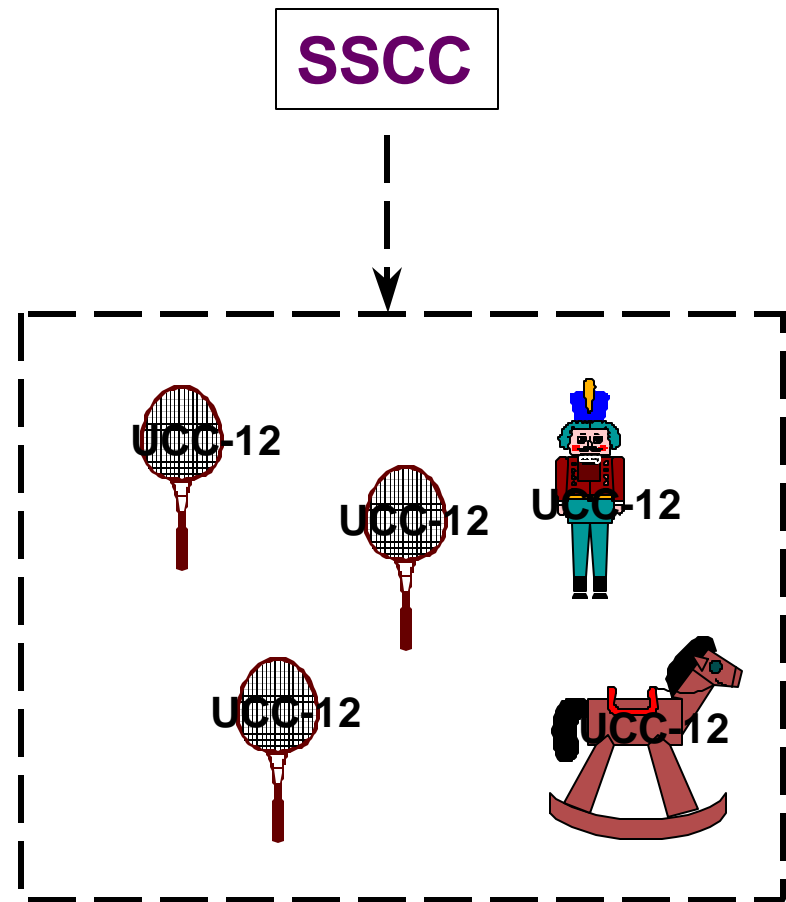
# Standard Pack Container

- EAN/UCC-14 (GTIN)
- Excellent candidate for ITF-14 direct print on corrugated
- “Content” information established through EDI 888 (Item Maintenance) or 832 (Price/Sales Catalog)



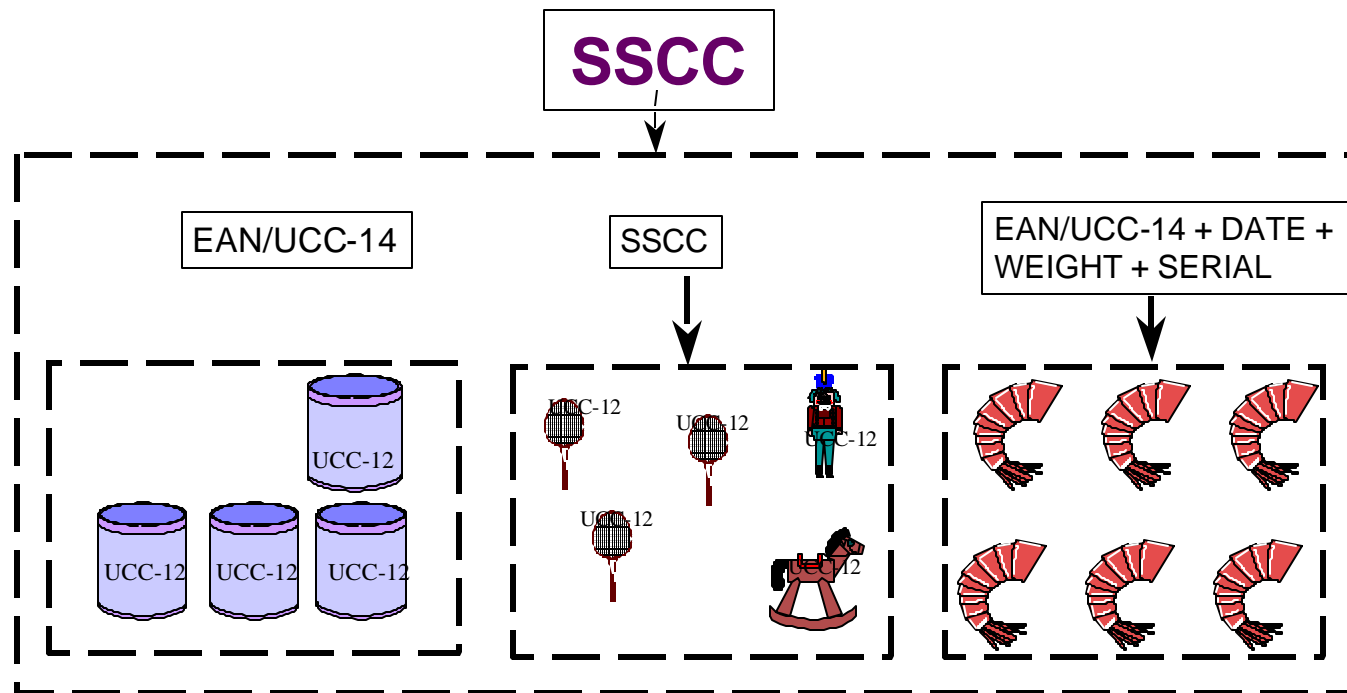
# Pick & Pack Container

- SSCC (NOT a GTIN)
- One-of-a-Kind content, routing, and/or destination
- “Content” information established through EDI 856 (Ship Notice/Manifest)
- UCC/EAN-128 (Label)

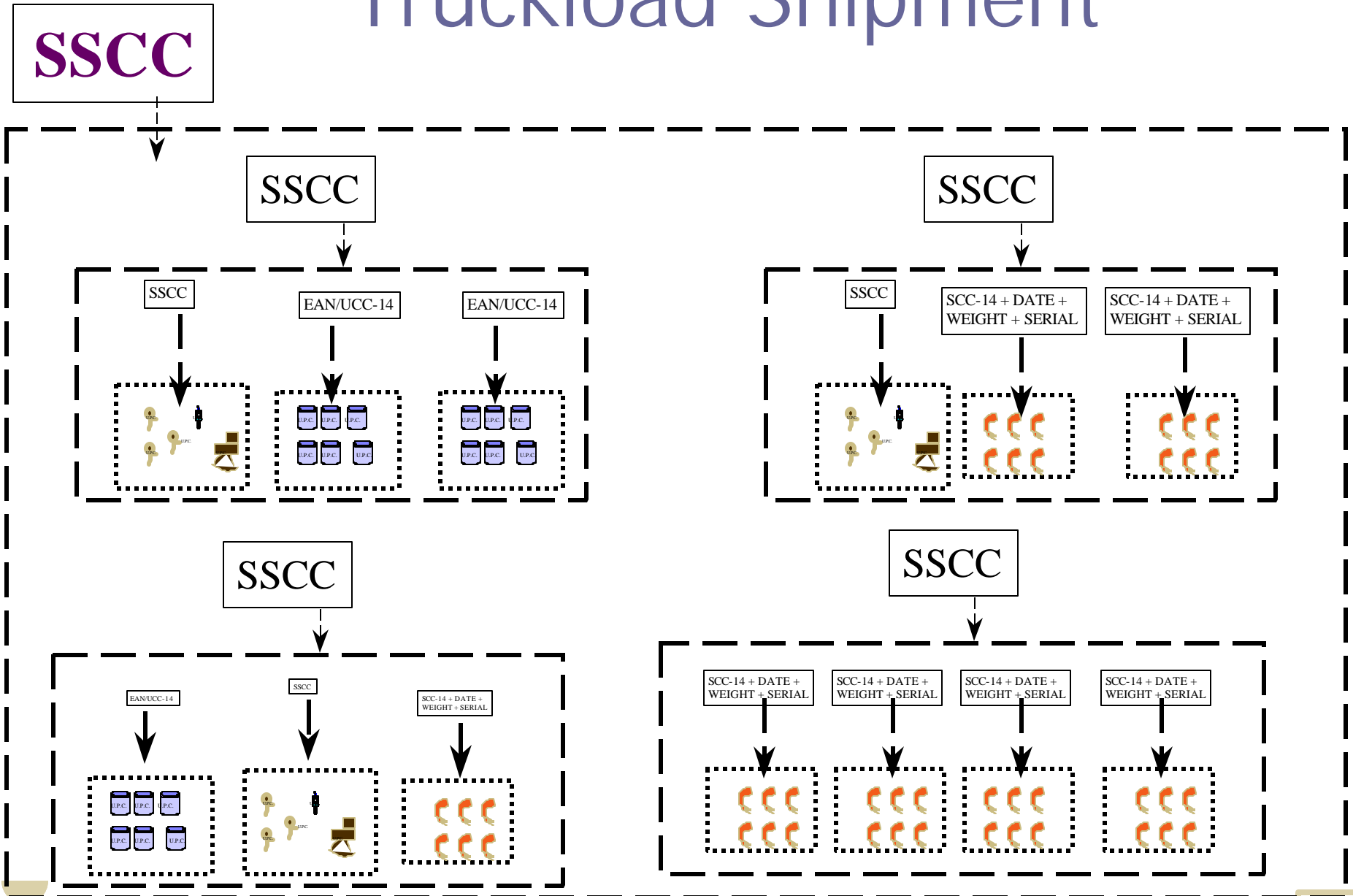


# One-of-a-Kind Pallet

- SSCC
- EDI 856
- UCC/EAN-128 (Label)
- Content, routing, and/or destination might be one-of-a-kind



# Truckload Shipment



# Where Do I Start?

- InsightU and its Sponsors
- Trading Partner Requirements
- Industry Trade Association Guidelines
- Uniform Code Council
  - “ANSI/UCC 6 - Application Standard for Shipping Container Codes”
  - “ANSI/UCC 4 - UCC/EAN-128 Application Identifier Standard”
  - “Guidelines for Producing Quality Symbols”
  - “Guidelines for Supply Chain Identification”



# Thank You! Any Questions?

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- Check out these online resources by visiting the Library at [www.InsightU.org](http://www.InsightU.org)

