Business Dimensions of Data Synchronization

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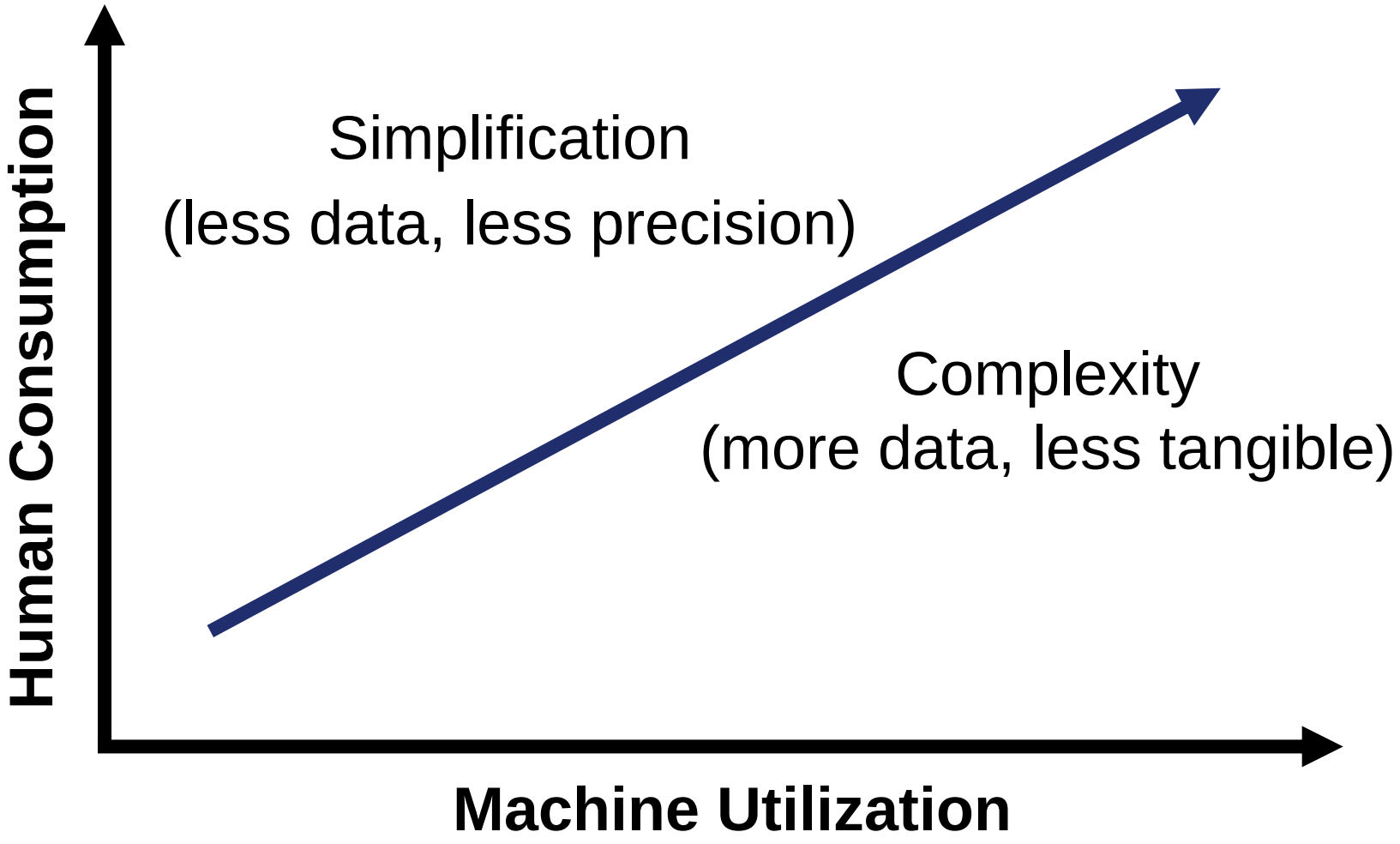
Overview

Data synchronization has several purposes

Each purpose puts different demands on the data

Basic Rules of Data



Sample Needs for Synchronized Data

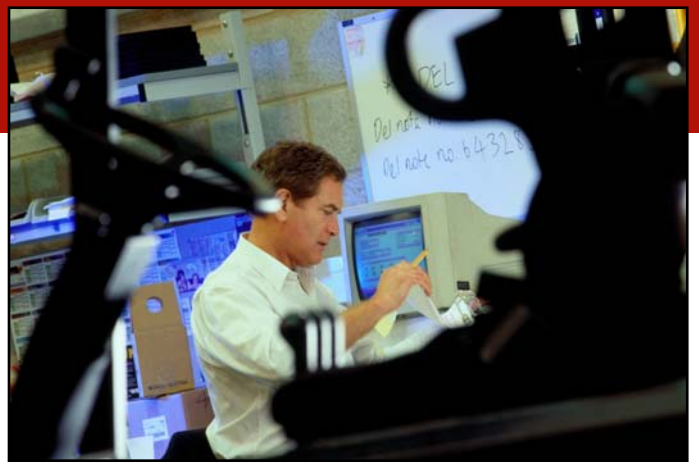
- EDI
  - Transactional
- Warehousing operations
  - Physical
- Quotes and bids
  - Selling and sales
- Web sites
  - Communications, sales and service

EDI

```
ISA*00*          *00*          *ZZ*SENDER ID     *ZZ*RECEIVER ID
*010101*0101*U*00401*000000001*0*T*!
GS*IN*SENDER ID*APP
RECEIVER*01010101*01010101*1*X*004010
ST*810*0001
BIG*20021208*00001**A999
N1*ST*XYZ Test Corporation*9*122334455
```

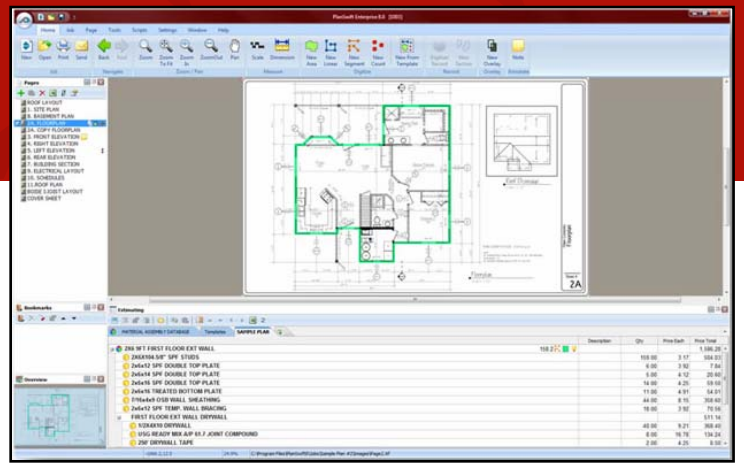
- Puts a premium on
  - Product ids
  - Complex pricing
  - Exacting structure and format
- Hoped for results
  - Lights-out transactions
  - Little or no manual intervention
- Issue
  - Good EDI data need not aggressively address human factors

Warehouse Operations



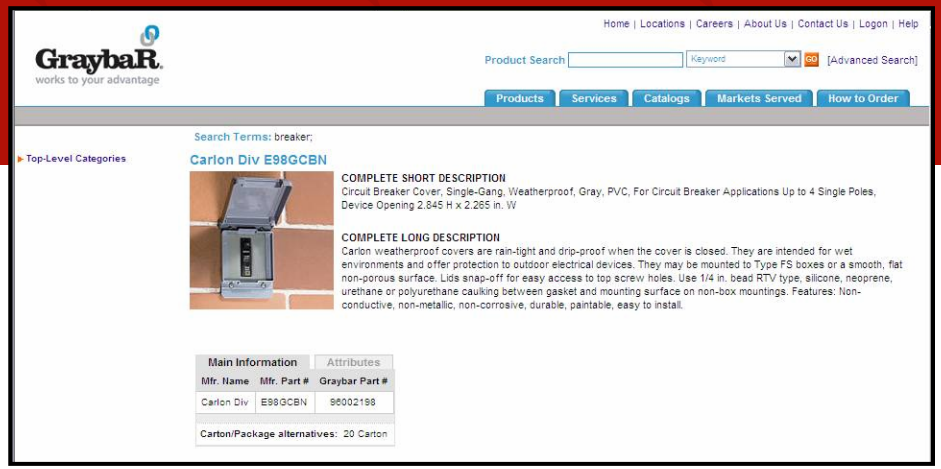
- Puts a premium on
  - Product ids
  - Product descriptions
  - Packaging and size information
- Hoped for results
  - Efficient put away
  - Efficient pick, pack and ship
- Issue
  - Many of the most important data fields don’t matter to anybody else and visa versa

Quotes and Bids



- Puts a premium on
  - Descriptive information
  - Human readability
  - Accepted pricing and packaging
- Hoped for results
  - Customer understanding and ease of use
- Issue
  - High ease of use defeats exacting needs of machine-to-machine uses like EDI

Web sites

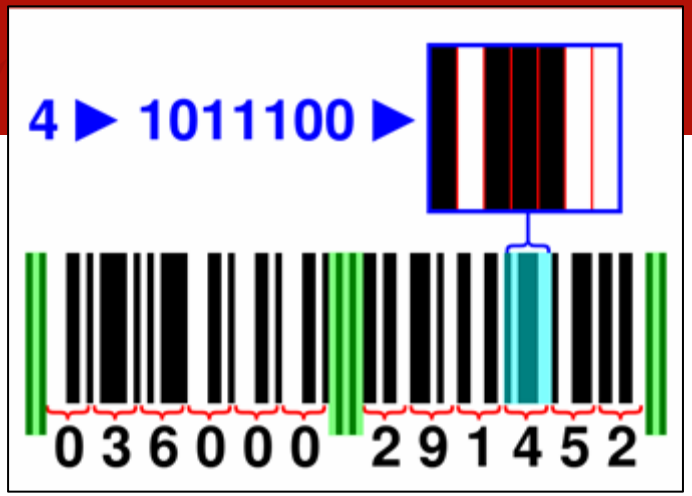


- Puts a premium on
  - Search-ability
  - Hierarchy
  - Images
- Hoped for results
  - Customer self service
- Issue
  - Descriptive and attribute standards that are difficult to agree on or undesirable

Synchronization

- The need for synchronization is constant
  - Just as important to a contractor-distributor relationship as to a Siemens-GM relationship
- The shape and quality of the individual data field does vary by usage
  - Some benefit more from ease of use
  - Others benefit more from precision and breadth

Machine Generated Data



- For instance
  - UPC
  - Part Number
  - Price calculations
- Table and algorithm driven
- Often voluminous and difficult for human consumption
- Often works for transactional situations but not for interactional situations

Human or Editorial Data

4-40-3/4"-pan-phil
vs.
TSR-1002
Ans. = 4-40, 3/4" long, panhead, phillips screw

- For instance
  - Descriptions
  - Significant part numbers
  - Images
  - Classifications, attributes, related items
- The result of knowledgeable staff work
- More costly and subjective
- Typically easier to use and understand
- Great for interactions, not essential for transactions

Big Deal - Small Deal

- Size and nature of the trading relationship
- Big deals, big companies
  - Machine data
  - Complexity
  - Are worth it
- Small deals, smaller companies, contractors
  - Human/editorial data
  - Simplicity/ease of Use
  - Trump precision and detail

Distribution ERP Systems

- Custom and legacy systems
  - Dialed into legacy data
  - Short or missing fields
  - Lack of data manipulation tools
- Less sophisticated users
  - Do they have to ‘work’ the data to load it ?
  - Does the data jive with their past business practices
- Does the distributor have the right level of software or software options ?

Key Data Element Commentary

- Description
  - Human readable
  - Searchable
  - Concise but differentiated
- Part numbers
  - Meaningful/significant
  - Hierarchical, build-ups
  - Mnemonic

Key Data Element Commentary

- Pricing
  - Simplified - trade oriented
  - Complex – algorithm oriented
- Images
  - Representive
  - Line art
  - Multi-dimensional or views

Key Data Element Commentary

- Category/classification
  - Standards
  - Practical class ID lengths
- Attributes
  - Standards
  - Level of granularity
  - Competitive issues
  - Disagreement

Key Data Element Commentary

- Packaging
  - Provide it
  - What is an each ? A piece ?
  - Understanding pack and price is a major tripping point
- MSDS / RoHS
  - Effects everybody
  - Simple to implement on most all systems

Key steps ?

- Manufacturer commitment to quality descriptions
- Manufacturer commitment to images and catalog data
- Distributor developed and sponsored product classification and attribute schemes
- Distributor/Industry development of product templates
  - Templates are pre-formed product descriptors that manufacturers can attach items to
  - Receptacle, Straight Blade, Duplex, 20A, 120V AC, Single Phase, Ivory, Duplex Surge Protective
- Distributors upgrading ERP systems
- IDEA continuing to adapt to older systems
- IDEA data development charter and capability

What has changed ?

- IDW founders were EDI centric
- Web sites have created new demands
- Distributors need to take a more pro-active role
- The need to include the entire supply chain
- Nothing – you still need a good description

Thank You