

# Agenda

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- Why Classify Parts
- Select the Right Team
- Schema Development Best Practices
- Auto Generate Part Name by Classification
  - New Part Creation
  - Save-As Part Creation
- Keeping Part Names Consistent

### Why Classify Parts

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#### What's to Gain?

- Organize Parts
  - · Groups parts into classes or types
  - · Standardizes names, descriptions, spelling, abbreviations
  - · Assign attributes for consistent part creation and management
  - · Facilitates navigation through large volumes of data
  - Find & Reuse Parts
    - · Reduces part proliferation through effective attribute searches
    - · Reduces duplication of parts, similar designs and drawings
- · Supports Part Standardization
  - · Promotes use of preferred parts and preferred suppliers
  - Use of preferred parts increases design reliability
- · Improve Efficiency and Cost Effectiveness
  - Enables consolidation of parts and suppliers to leverage volume discounts
  - · Avoids redundant design time, part setup and documentation
  - · Helps identify/consolidate duplicates and correct inconsistencies
  - · Reduces overall data volumes for management

### Select the Right Team



#### **Development Core Team**

- A group of core team members with broad-based product knowledge
- All areas of the business should be represented Design, Purchasing, Sales, etc.
- System Admin to develop the schema in the software
- · The team should have support and backing from top level management

#### **Conversion Team**

- · Dependent on the accuracy of the legacy data.
  - ✓ If data is accurate or clearly defined on drawings, entry-level individuals may be used to populate the attribute fields
  - ✓ If the data is questionable, a more technically savvy individual is required

#### **Governance Team**

- · Similar criteria as the Development Team
- Meets as required; periodically audits classifications audits for accuracy / quality
- · System Admin to maintain schema updates and edits

# Schema Development

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### **Review Relevant Classification Structures**

Standard	Website	Description	Purpose
International Harmonized Commodity Description and Coding System (HS)	www.foreign- trade.com/reference/hsc ode.htm	Internationally standardized system of names and numbers 6-digit nomenclature: Heading (4); Subheading (+2)	For classifying traded products developed and maintained by the World Customs Organization (WCO)
US Harmonized Tariff Schedule (HTS)	www.usitc.oov/tata/hts/index wo	Based on the international Harmonized System — 12,000 products 10-digit nomenclature: Chapter (2): Heading (+2) Subheading (+2): Item (+4)	For describing all US imported goods for duty, quota, and statistical purposes
Schedule B Export Codes	http://www.census.gov/f oreign- trade/schedules/b/	Based on the international Harmonized System ~8,000 products 10-digit nomenclature (see HTS)	For classifying products exported from the US
RosettaNet	http://en.wikipedia.org/ witips.carrektar ht /sites/RosettaNet/	Does not use numbering system 2 Levels: Category (group of products) Product (specific product)	Provides business frameworks that allow individual companies to enhance the interoperability of business processes across the global supply chain – e.g., make distributor's system talk to manufacturer's system
United Nations Standard Products and Services Code (UNSPSC)	www.unspsc.org/	8-digit nomenclature: Segment (2): Family (+2) Class (+2): Commodity (+2)	For the classification of products and services across multiple sectors
Dublin Core Metadata Element Set	http://dublincore.org/doc uments/dces/	15 attributes subset of DCMI Metadata Terms	Standardized set of generic metadata for describing information resources in ways that make them easier to find (e.g. author, date created, etc.)

# Schema Development



### Define Guidelines - Options

- Naming Convention
  - Determine whether or not to "auto-generate" the description
  - Do you have a character limitation? How many characters?
  - Do you need an "Extended Part Description"?

### Dictionary

#### Schema

#### Solar's Technical Dictionary



## Schema Development

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#### Define Guidelines - Solar Turbines schema information

- · Number of major branches
  - 28 top level
  - 148 sub level

#### · Number of end nodes

1658 Note: somewhat dictated by the naming convention - only one node can be selected

#### Depth

no more than 4 levels down - becomes a user issue

#### · Number of parts managed

- 300,000 parts are currently classified out of one million+ parts in the system
- Business rule: every new part created requires classification

#### · Number of attributes per node

- Number varies from 1 to 23 most attributes are String-type with a drop-down menu of values
- Over 1100 unique attributes

#### · Max attributes per node

- I don't believe there's a software limitation for number of attributes assigned
- This becomes more of a user issue and what is a reasonable amount of data to enter

### What We've Learned



#### **Pitfalls**



- Designing overly complex taxonomies and metadata strategies:
  - Too deep or too wide cumbersome navigation
  - Too many attributes assigned to leaf node
  - Too many attribute options
  - · Too much variation within one node
- Designing attributes to cover broad range of leaf nodes
  - Too difficult to maintain
- OOB software does not sync the views

# Motto: It must be right the first time

get it **right** 



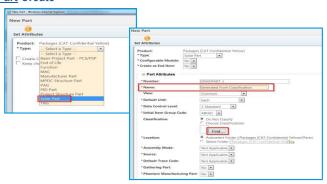
Take the time to design the schema accurately.

Once parts are linked it is difficult to make changes.

# Auto Generate Part Name by Classification

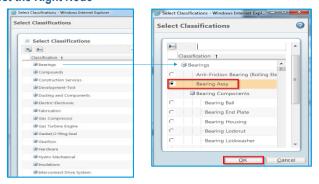


### **New Part Create**



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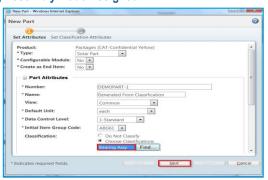
### **Select the Right Node**



# Auto Generate Part Name by Classification

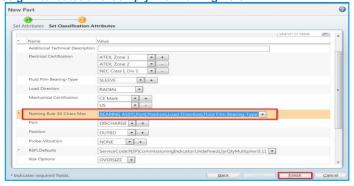


### **Bearing Assembly Node Assigned**



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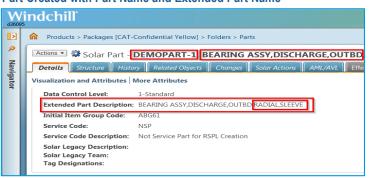
**Assign Attributes and Comply with Naming Rule** 



# Auto Generate Part Name by Classification



### Part Created with Part Name and Extended Part Name





### Part Created without Proper Classification cannot be created in ERP

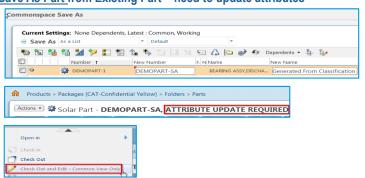


Please contact your Business Process Lead (BPL) if you have questions regarding how to resolve these problems.

# Auto Generate Part Name by Classification



### Save As Part from Existing Part - need to update attributes



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### Save As Part from Existing Part – need to update attributes

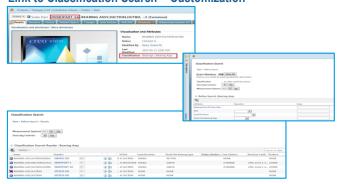




# Auto Generate Part Name by Classification



### **Link to Classification Search - Customization**



### **Keeping Part Attributes Consistent**

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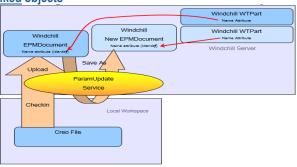
### **Updating non Master Attributes on All Part Views**

- After a part is created in the common view, manufacturing and service views can be created
- The user should be able to re-classify parts and have the attribute data (IBA) updated on all part views that exist for the part
- · Process:
  - User can only Checkout and Edit the Common View
  - User Changes Attributes
  - On check-in, Attributes are updated on Manufacturing and Service Views to match the common view

# **Keeping Part Names Consistent**



Populate CREO object names upon from PTC Windchill wtpart names for non-linked objects



Data Conversion

### **Define Target Data Set**

- Not all new part-types require classification
- Not all legacy parts require classification
  - Current demand
  - Inventory count
  - Product life
  - Maintenance & Repair
- Keep a life line for go-live add generic node



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