



# The value of good product data

*May 2008*

Richard Turner

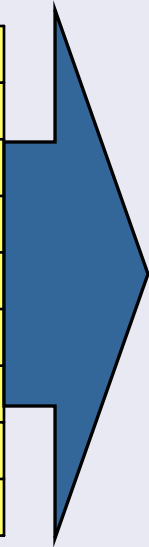
<http://www.convergedata.net/>

**The data in most companies is poor at best lacking useful information.**

## **Problem**

### **Today's Data**

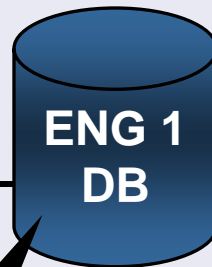
| <b>Part Number</b> | <b>Old Description</b>        |
|--------------------|-------------------------------|
| T41XCH0375-0250    | 3.750 - 2.500 110 KSI         |
| T41XCS0375-0250    | 3.750 X 2.500 TUBE            |
| T41XHH0375-0250    | 3.750/2.500 110 KSI           |
| T41XRC0375-0250    | 3.750 X 2.500                 |
| T41XRC0375-025B    | TBE3.750 X 2.5                |
| 23032              | 03.750 02.500 41X 110-140Y CD |
| 23134              | 03.750 02.500 41X105Y         |
| T4X14H0375-0250    | 3.750 X 2.500 110 KSI         |

- 
- The data is inconsistent and incomplete
  - There may be duplicate items but they are not recognizable
  - Not enough information is available to determine the characteristics of the product
  - Most likely a new part number will be created and ordered

**Product data can be scattered in different locations, in many formats, and databases across a company.**

## Problem

| Product No.    | Description       | Inside Diameter | Outside Diameter | Length | Material           |
|----------------|-------------------|-----------------|------------------|--------|--------------------|
| A 7B 4-SCB1116 | Cored Bearing Bar | 1.375           | 2                | 6.5    | Impregnated Bronze |
| A 7B 4-SCB1228 | Cored Bearing Bar | 1.5             | 3.5              | 6.5    | Impregnated Bronze |
| A 7B 4-SCB1020 | Cored Bearing Bar | 1.25            | 2.5              | 6.5    | Impregnated Bronze |
| A 7B 4-SCB4864 | Cored Bearing Bar | 6               | 8                | 6.5    | Impregnated Bronze |
| A 7B 4-SCB1024 | Cored Bearing Bar | 1.25            | 3                | 6.5    | Impregnated Bronze |
| A 7B 4-SCB3648 | Cored Bearing Bar | 4.5             | 6                | 6.5    | Impregnated Bronze |
| A 7B 4-SCB3256 | Cored Bearing Bar | 4               | 7                | 6.5    | Impregnated Bronze |
| A 7B 4-SCB4056 | Cored Bearing Bar | 5               | 7                | 6.5    | Impregnated Bronze |
| A 7B 4-SCB3244 | Cored Bearing Bar | 4               | 5.5              | 6.5    | Impregnated Bronze |
| A 7B 4-SCB3040 | Cored Bearing Bar | 3.75            | 5                | 6.5    | Impregnated Bronze |
| A 7B 4-SCB3248 | Cored Bearing Bar | 4               | 6                | 6.5    | Impregnated Bronze |
| A 7B 4-SCB2840 | Cored Bearing Bar | 3.5             | 5                | 6.5    | Impregnated Bronze |



**Should we write-off those bearings sitting in stock? I don't understand why we have so many!**



| Product No.    | Description       | Inside Diameter | Outside Diameter | Length | Material           |
|----------------|-------------------|-----------------|------------------|--------|--------------------|
| A 7B 4-SCB1116 | Cored Bearing Bar | 1.375           | 2                | 6.5    | Impregnated Bronze |
| A 7B 4-SCB1228 | Cored Bearing Bar | 1.5             | 3.5              | 6.5    | Impregnated Bronze |
| A 7B 4-SCB1020 | Cored Bearing Bar | 1.25            | 2.5              | 6.5    | Impregnated Bronze |
| A 7B 4-SCB4864 | Cored Bearing Bar | 6               | 8                | 6.5    | Impregnated Bronze |
| A 7B 4-SCB1024 | Cored Bearing Bar | 1.25            | 3                | 6.5    | Impregnated Bronze |
| A 7B 4-SCB3648 | Cored Bearing Bar | 4.5             | 6                | 6.5    | Impregnated Bronze |
| A 7B 4-SCB3256 | Cored Bearing Bar | 4               | 7                | 6.5    | Impregnated Bronze |
| A 7B 4-SCB4056 | Cored Bearing Bar | 5               | 7                | 6.5    | Impregnated Bronze |
| A 7B 4-SCB3244 | Cored Bearing Bar | 4               | 5.5              | 6.5    | Impregnated Bronze |
| A 7B 4-SCB3040 | Cored Bearing Bar | 3.75            | 5                | 6.5    | Impregnated Bronze |
| A 7B 4-SCB3248 | Cored Bearing Bar | 4               | 6                | 6.5    | Impregnated Bronze |
| A 7B 4-SCB2840 | Cored Bearing Bar | 3.5             | 5                | 6.5    | Impregnated Bronze |

**I can't find a 1/4" Bearing in our database, matter of fact I don't know what most of these bearings are anyways. Lets just submit a new order.**

Typically data on existing parts lack useful information, leaving you with ambiguous descriptions, erroneous data, making it hard to differentiate one part from another.

## Data Problem

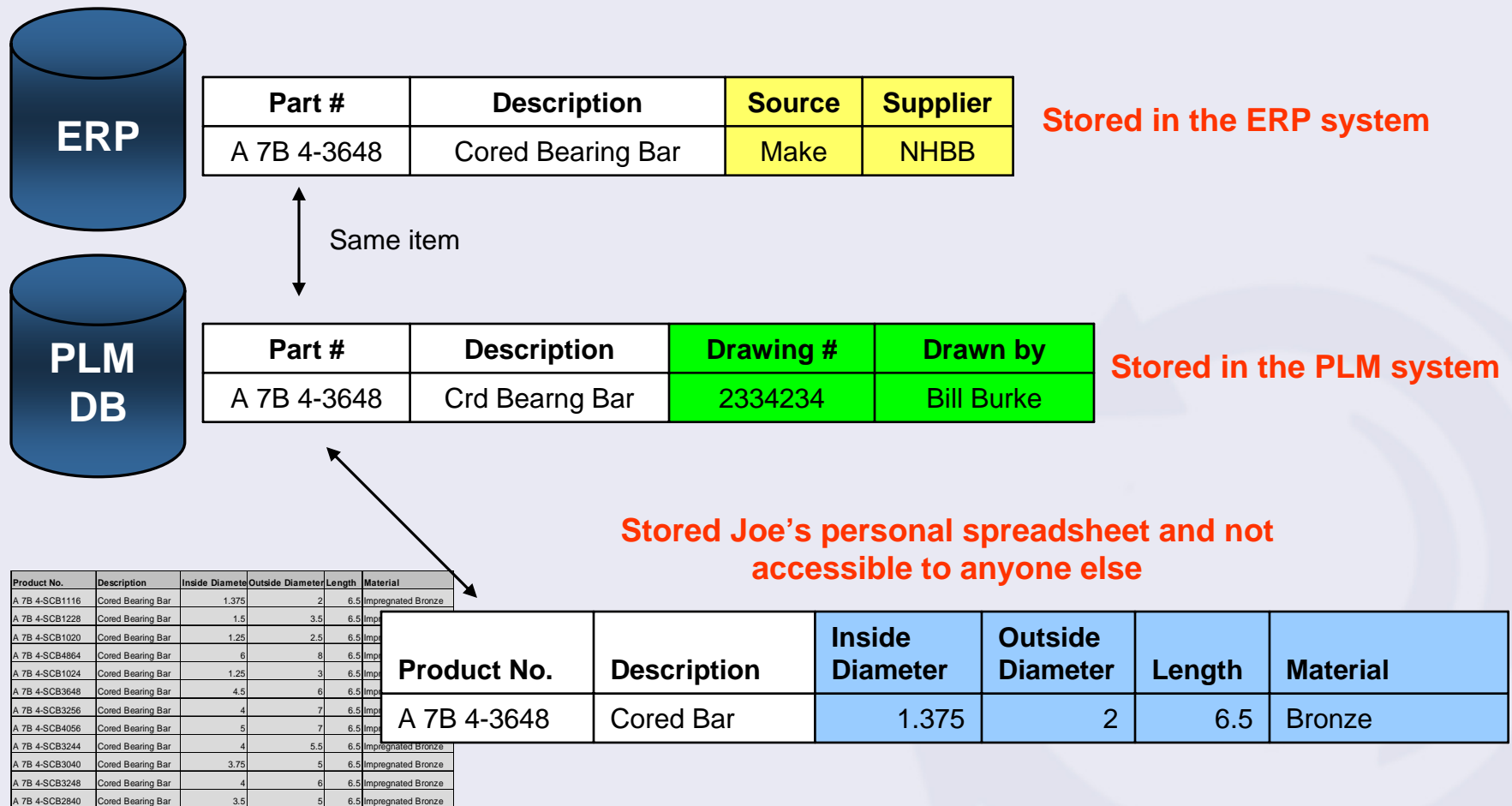
| Part Number | Description  |
|-------------|--|
| 52465-0932  | BEARING, CYLINDRICAL, OIL IMPREGNATED, SINTERED BRONZE |
| 09253-9821  | BEARING, CYLINDRICAL, OIL IMPREGNATED, SINTERED BRONZE |
| 84321-9872  | BEARING, CYLINDRICAL, OIL IMPREGNATED, SINTERED BRONZE |
| 98420-9094  | BRNG, CYL, OIL IMPREGNATED, SINTERED BRZ               |
| 52465-0932  | BAERING, CYLINDRICAL, OIL IMPREGNATED, SINTERED BRONZE |
| 8723-2345   | BEARING, CYLINDRICAL, OIL INJECTED, SINTERED BRONZE    |
| 8292-99925  | BEARING, CYLINDRICAL, OIL SINTERED BRONZE, IMPREGNATED |
| 99233-9823  | BEARING, CYLINDRICAL, OIL IMPREGNATED, SINTERED BRONZE |
| 12794-0943  | BEARING, CYLINDRICAL                                   |

Annotations:

- Inconsistent vocabulary**: Points to the part numbers 52465-0932 and 98420-9094.
- Spelling error**: Points to the description "BAERING" in the row with part number 52465-0932.
- Lacks sufficient attributes**: Points to the description "BEARING, CYLINDRICAL" in the row with part number 12794-0943.
- Words are swapped**: Points to the description "OIL SINTERED BRONZE, IMPREGNATED" in the row with part number 8292-99925.

Even if complete information is available, it is probably scattered around multiple systems, geographies or even other companies.

## Problem

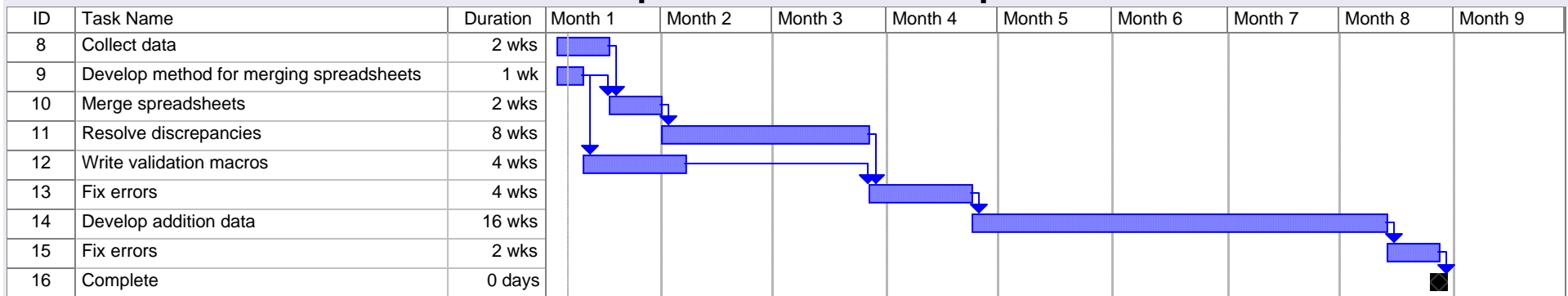


**Collecting, organizing and cleansing the data using manual methods and excel spreadsheets is difficult, time consuming and error prone.**

## Problem

*Illustrative*

### Sample Timeline for 10K parts



- Merging data from multiple spreadsheets is error prone
- Keeping the data straight in spreadsheets requires constant administration
- Even with a database, problems will occur without a good data model or tools to help clean your data
- Custom data validations will need to be created and run
- Data problems are not recognized until the final stages lengthening the validation task

| Product No.    | Description       | Inside Diameter |
|----------------|-------------------|-----------------|
| A 7B 4-SCB1116 | Cored Bearing Bar | 1.375           |
| A 7B 4-SCB1228 | Cored Bearing Bar | 1.5             |
| A 7B 4-SCB1020 | Cored Bearing Bar | 1.25            |
| A 7B 4-SCB4864 | Cored Bearing Bar | 6               |

| Product No.    | Description       | Inside Diameter |
|----------------|-------------------|-----------------|
| A 7B 4-SCB1116 | Cored Bearing Bar | 1.375           |
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| A 7B 4-SCB1020 | Cored Bearing Bar | 1.25            |
| A 7B 4-SCB4864 | Cored Bearing Bar | 6               |

| Product No.    | Description       | Inside Diameter | Outside Diameter | Length | Material           |
|----------------|-------------------|-----------------|------------------|--------|--------------------|
| A 7B 4-SCB1116 | Cored Bearing Bar | 1.375           | 2                | 6.5    | Impregnated Bronze |
| A 7B 4-SCB1228 | Cored Bearing Bar | 1.5             | 3.5              | 6.5    | Impregnated Bronze |
| A 7B 4-SCB1020 | Cored Bearing Bar | 1.25            | 2.5              | 6.5    | Impregnated Bronze |
| A 7B 4-SCB4864 | Cored Bearing Bar | 6               | 8                | 6.5    | Impregnated Bronze |

## CDS Design for Retrieval software improves return on investment benefits by eliminating most data production problems.

### Software Benefits

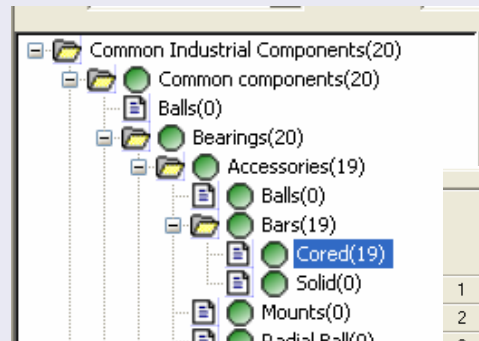
- The Category and Attribute Managers provide an environment for disparate user communities to quickly collaborate towards a larger whole while capturing the best intelligence from each group
- A simple Workflow assists with efficiently coordinating category, attribute and data creation activities while reducing errors, rework and redundancy
- The Data Developer assists with creating, fixing and releasing data incrementally enabling the data to be used sooner
- Specialized Data Validation capabilities improve data consistency and accuracy
- A Item Importer allows data to be captured from many different sources and improves data development efficiency
- Item Clusters allows the data to be analyzed to identify opportunities for rationalization or strategic sourcing

# The CDS Design for Retrieval approach results in useful data faster and with higher quality.

## 1. Collect Data

| Part #      | Description       | Source | Supplier | Drawing # | Drawn by   | Inside Diameter | Outside Diameter | Length | Material |
|-------------|-------------------|--------|----------|-----------|------------|-----------------|------------------|--------|----------|
| A 7B 4-3648 | Cored Bearing Bar | Make   | NHBB     | 2334234   | Bill Burke | 1.375           | 2                | 6.5    | Bronze   |

## 2. Build the categories and attributes Collaboratively



## 3. Import existing data and create supplemental data

|   | Product #      | INSIDE DIAMETER | UOM | LENGTH  | UOM | MATERIAL           | MEASUREMENT METHOD | OUTSIDE DIAMETER | UOM |
|---|----------------|-----------------|-----|---------|-----|--------------------|--------------------|------------------|-----|
| 1 | A 7B 4-SCB2230 | 2.75 in         |     | 6.50 in |     | Impregnated Bronze | English            | 3.75 in          |     |
| 2 | A 7B 4-SCB2430 | 3.00 in         |     | 6.50 in |     | Impregnated Bronze | English            | 3.75 in          |     |
| 3 | A 7B 4-SCB2432 | 3.00 in         |     | 6.50 in |     | Impregnated Bronze | English            | 4.00 in          |     |
| 4 | A 7B 4-SCB2634 | 3.25 in         |     | 6.50 in |     | Impregnated Bronze | English            | 4.25 in          |     |
| 5 | A 7B 4-SCB2036 | 2.50 in         |     | 6.50 in |     | Impregnated Bronze | English            | 4.50 in          |     |
| 6 | A 7B 4-SCB2436 | 3.00 in         |     | 6.50 in |     | Impregnated Bronze | English            | 4.50 in          |     |
| 7 | A 7B 4-SCB2838 | 3.50 in         |     | 6.50 in |     | Impregnated Bronze | English            | 4.75 in          |     |
| 8 | A 7B 4-SCB2040 | 2.50 in         |     | 6.50 in |     | Impregnated Bronze | English            | 5.00 in          |     |

## 4. Validate and cleanse the data

## 5. Release the data that is ready

|Raw materials|Bar and rod|Round

8891 Products Count

53 Total Attributes

393083 Attribute Values

471223 Maximum Attribute Values

Error(s) Type Tested Errors

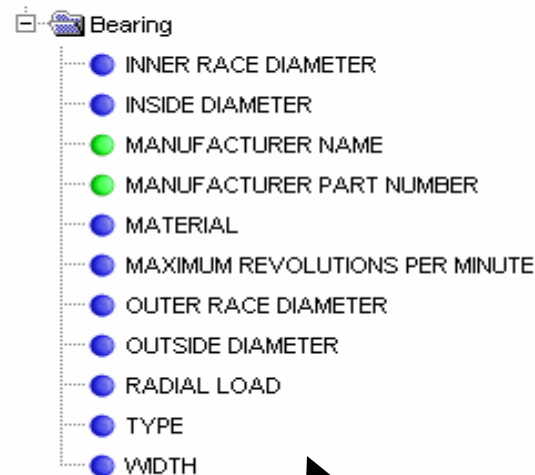
|                |        |       |        |  |
|----------------|--------|-------|--------|--|
| Null           | 106692 | 53674 | 49.69% |  |
| Numeric Type   | 19534  | 105   | 99.46% |  |
| Date Type      | 0      | 0     | 100%   |  |
| Range          | 19534  | 750   | 96.16% |  |
| Allowed Values | 71598  | 2703  | 96.22% |  |

Total of All Errors Found : 57232



The Convergence software provides the capability to collaboratively develop an enterprise schema promoting a common way to organize product information.

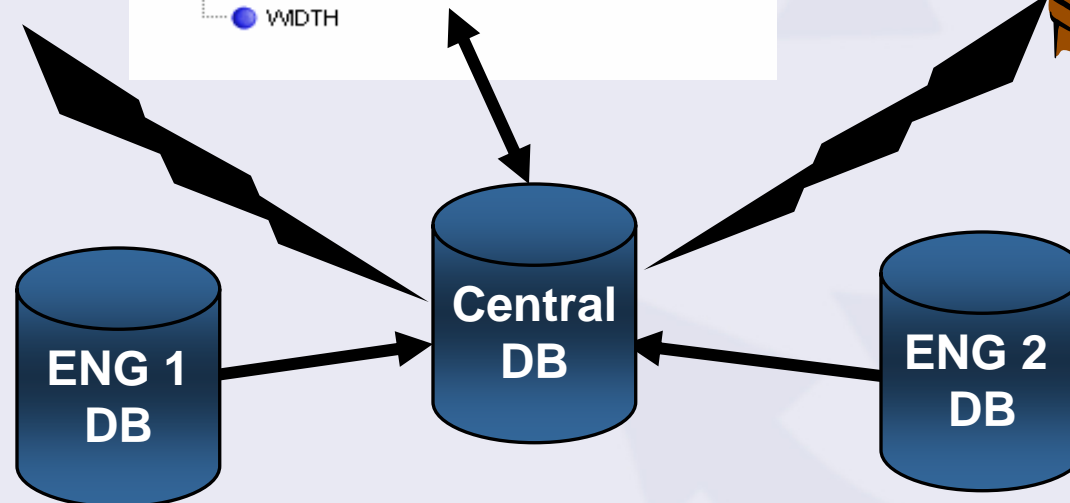
**Hierarchy:** Bearing

- 
- INNER RACE DIAMETER
  - INSIDE DIAMETER
  - MANUFACTURER NAME
  - MANUFACTURER PART NUMBER
  - MATERIAL
  - MAXIMUM REVOLUTIONS PER MINUTE
  - OUTER RACE DIAMETER
  - OUTSIDE DIAMETER
  - RADIAL LOAD
  - TYPE
  - WIDTH

We can use that existing 1/4" bearing for our new product.



I can see 5 exact same bearing's all with different part numbers!



**Combining data from multiple systems into a unified representation which forms a complete description of the item accessible to everyone.**

| Part #      | Description       | Source | Supplier | Drawing # | Drawn by   | Inside Diameter | Outside Diameter | Length | Material |
|-------------|-------------------|--------|----------|-----------|------------|-----------------|------------------|--------|----------|
| A 7B 4-3648 | Cored Bearing Bar | Make   | NHBB     | 2334234   | Bill Burke | 1.375           | 2                | 6.5    | Bronze   |

Convergence Data Services Toolset - [Data Developer]

File Help Edit View Format

Data Developer

Batch [ ] Data Type [ ] Restrict to Allowed Values [ ] Retrieve Save

|    | Product #      | INSIDE DIAMETER | UOM | LENGTH  | UOM | MATERIAL           | MEASUREMENT METHOD | OUTSIDE DIAMETER | UOM |
|----|----------------|-----------------|-----|---------|-----|--------------------|--------------------|------------------|-----|
| 1  | A 7B 4-SCB2230 | 2.75 in         |     | 6.50 in |     | Impregnated Bronze | English            | 3.75 in          |     |
| 2  | A 7B 4-SCB2430 | 3.00 in         |     | 6.50 in |     | Impregnated Bronze | English            | 3.75 in          |     |
| 3  | A 7B 4-SCB2432 | 3.00 in         |     | 6.50 in |     | Impregnated Bronze | English            | 4.00 in          |     |
| 4  | A 7B 4-SCB2634 | 3.25 in         |     | 6.50 in |     | Impregnated Bronze | English            | 4.25 in          |     |
| 5  | A 7B 4-SCB2036 | 2.50 in         |     | 6.50 in |     | Impregnated Bronze | English            | 4.50 in          |     |
| 6  | A 7B 4-SCB2436 | 3.00 in         |     | 6.50 in |     | Impregnated Bronze | English            | 4.50 in          |     |
| 7  | A 7B 4-SCB2838 | 3.50 in         |     | 6.50 in |     | Impregnated Bronze | English            | 4.75 in          |     |
| 8  | A 7B 4-SCB2040 | 2.50 in         |     | 6.50 in |     | Impregnated Bronze | English            | 5.00 in          |     |
| 9  | A 7B 4-SCB2440 | 3.00 in         |     | 6.50 in |     | Impregnated Bronze | English            | 5.00 in          |     |
| 10 | A 7B 4-SCB2840 | 3.50 in         |     | 6.50 in |     | Impregnated Bronze | English            | 5.00 in          |     |
| 11 | A 7B 4-SCB3040 | 3.75 in         |     | 6.50 in |     | Impregnated Bronze | English            | 5.00 in          |     |
| 12 | A 7B 4-SCB3244 | 4.00 in         |     | 6.50 in |     | Impregnated Bronze | English            | 5.50 in          |     |
| 13 | A 7B 4-SCB2448 | 3.00 in         |     | 6.50 in |     | Impregnated Bronze | English            | 6.00 in          |     |
| 14 | A 7B 4-SCB2848 | 3.50 in         |     | 6.50 in |     | Impregnated Bronze | English            | 6.00 in          |     |
| 15 | A 7B 4-SCB3248 | 4.00 in         |     | 6.50 in |     | Impregnated Bronze | English            | 6.00 in          |     |
| 16 | A 7B 4-SCB3648 | 4.50 in         |     | 6.50 in |     | Impregnated Bronze | English            | 6.00 in          |     |
| 17 | A 7B 4-SCB3256 | 4.00 in         |     | 6.50 in |     | Impregnated Bronze | English            | 7.00 in          |     |
| 18 | A 7B 4-SCB4056 | 5.00 in         |     | 6.50 in |     | Impregnated Bronze | English            | 7.00 in          |     |
| 19 | A 7B 4-SCB4864 | 6.00 in         |     | 6.50 in |     | Impregnated Bronze | English            | 8.00 in          |     |

Common Industrial Components(20)

- Common components(20)
  - Balls(0)
  - Bearings(20)
    - Accessories(19)
    - Balls(0)
    - Bars(19)
    - Cored(19)
    - Solid(0)
    - Mounts(0)
    - Radial Ball(0)
    - Radial Plain(0)
    - Radial Roller(0)
    - Thrust Ball(0)
    - Thrust Roller(0)
  - Bearing Components(0)
  - Bearing(1)
  - Coil Springs(0)
  - Disc(0)
  - Fasteners(0)
  - High pressure fittings(0)
  - Hinges(0)
  - Orifice jet, nozzle(0)
  - Seals(0)
  - Shaped components(0)
  - Shims(0)
  - Subs(0)
  - Unclassified(0)

Using SmartFind users are presented different attribute filters to help them find the exact bearing they need.

## Search Criteria

## Search Result

### SmartFind

[Logout](#)

Load Template Save Template

Search Criteria Standard Search

Items Containing: bearing [New Search](#)

Category Filter: [Set Selected Category As Filter](#)

List Filter: [Upload File](#) Sort Field:

Attribute Filters [Add Filter\(s\)](#) [Check All](#) [UnCheck All](#)

| Attribute  | Operation | Filter          | UOM  |
|--|-----------|-----------------|------|
| <input checked="" type="checkbox"/> Inner Diameter, Bore-Nom | Greater   | 0.0309999387874 | in   |
| <input checked="" type="checkbox"/> Material, Basic          | Equal     | Alloy Steel     |      |
| <input checked="" type="checkbox"/> Temperature Rating-Max   | Greater   | 18.66666816     | degC |

[Refine Search](#)

#### Items

Showing items 1-15 of 322

[Full Screen](#) [Export To Excel](#) [Export To CSV](#)

|                        | Item Number               | Qualifier            | Item Description                                    | Inner Diameter, Bore-Nom (in) | Material, Basic | Temperature Rating-Max(degC) |
|------------------------|---------------------------|----------------------|---|-------------------------------|-----------------|------------------------------|
| <a href="#">Select</a> | <a href="#">4D0031-1</a>  | Part.CAGE-Code.88277 | BEARING, BALL, AIRFRAME - ANTI-FRICTION, LIGHT DUTY | 0.6693                        | ALLOY STEEL     | 72.65433914568               |
| <a href="#">Select</a> | <a href="#">4D0031N1</a>  | Part.CAGE-Code.88277 | BEARING, BALL, AIRFRAME - ANTI-FRICTION, LIGHT DUTY | 0.6693                        | ALLOY STEEL     | 72.65433914568               |
| <a href="#">Select</a> | <a href="#">4D0220-4A</a> | Part.CAGE-Code.88277 | BEARING, RADIAL, DOUBLE ROW, TRIANGLE HOLE PATTERN  | 0.25                          | ALLOY STEEL     | 121                          |

### SmartFind

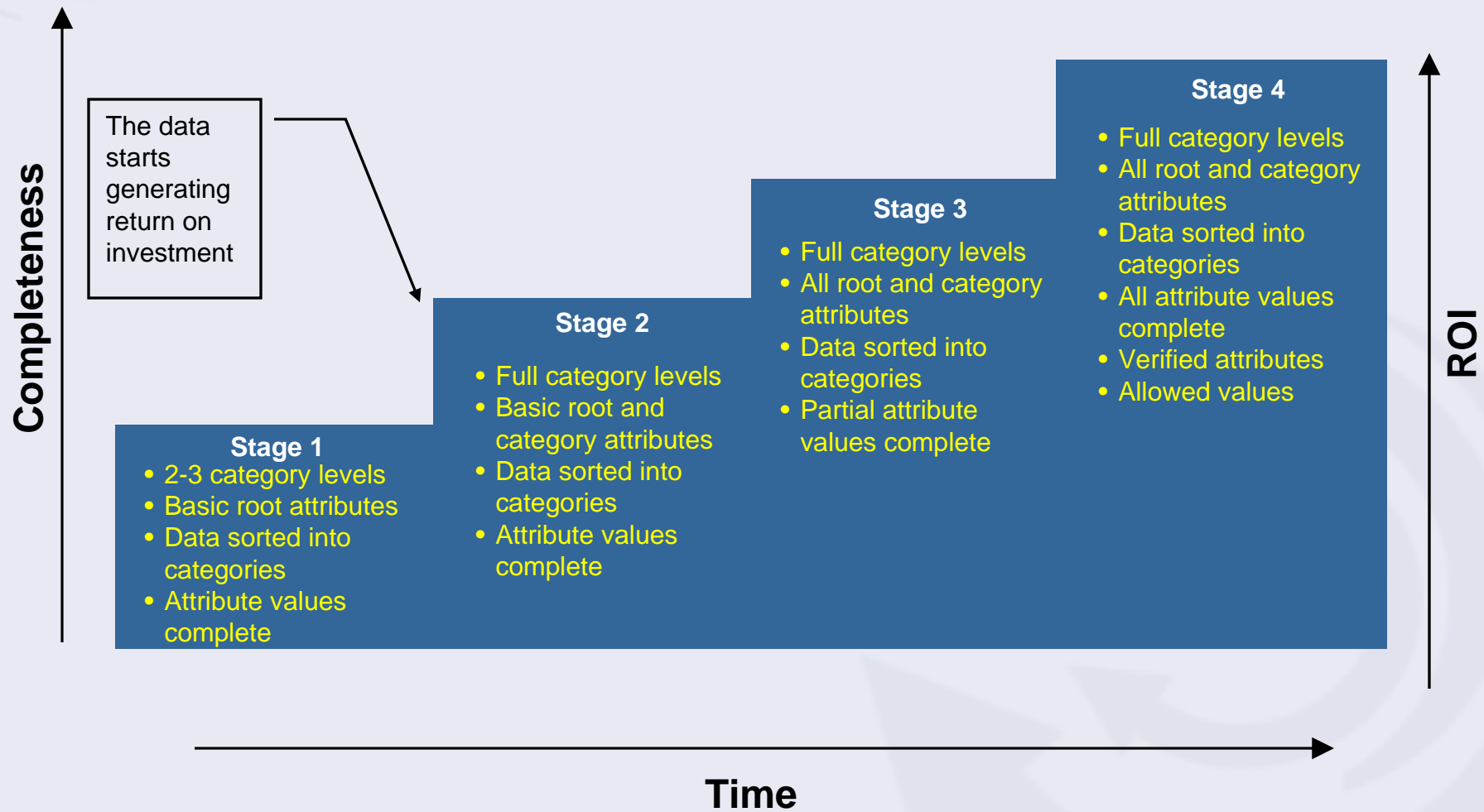
[Logout](#)

#### Items

Showing items 1-30 of 322

| Item Number                 | ItemID | Qualifier            | Item Description  | Inner Diameter, Bore-Nom(in) | Material, Basic | Temperature Rating-Max(degC) |
|-----------------------------|--------|----------------------|---|------------------------------|-----------------|------------------------------|
| <a href="#">4D0031-1</a>    | 1965   | Part.CAGE-Code.88277 | BEARING, BALL, AIRFRAME - ANTI-FRICTION, LIGHT DUTY                     | 0.6693                       | ALLOY STEEL     | 72.65433914568               |
| <a href="#">4D0031N1</a>    | 1966   | Part.CAGE-Code.88277 | BEARING, BALL, AIRFRAME - ANTI-FRICTION, LIGHT DUTY                     | 0.6693                       | ALLOY STEEL     | 72.65433914568               |
| <a href="#">4D0220-4A</a>   | 864    | Part.CAGE-Code.88277 | BEARING, RADIAL, DOUBLE ROW, TRIANGLE HOLE PATTERN                      | 0.25                         | ALLOY STEEL     | 121                          |
| <a href="#">4D0220-4B</a>   | 865    | Part.CAGE-Code.88277 | BEARING, RADIAL, DOUBLE ROW, TRIANGLE HOLE PATTERN                      | 0.25                         | ALLOY STEEL     | 121                          |
| <a href="#">4D0220-5A</a>   | 866    | Part.CAGE-Code.88277 | BEARING, RADIAL, DOUBLE ROW, TRIANGLE HOLE PATTERN                      | 0.3125                       | ALLOY STEEL     | 121                          |
| <a href="#">4D0220-5B</a>   | 867    | Part.CAGE-Code.88277 | BEARING, RADIAL, DOUBLE ROW, TRIANGLE HOLE PATTERN                      | 0.3125                       | ALLOY STEEL     | 121                          |
| <a href="#">4M106-03001</a> | 18383  | Part.CAGE-Code.76301 | BUSHING, SLEEVE - CLAMP UP, SPECIAL                                     | 0.19                         | ALLOY STEEL     | 232.2222408                  |
| <a href="#">4M106-03004</a> | 18384  | Part.CAGE-Code.76301 | BUSHING, SLEEVE - CLAMP UP, SPECIAL                                     | 0.19                         | ALLOY STEEL     | 232.2222408                  |
| <a href="#">4M106-03006</a> | 18385  | Part.CAGE-Code.76301 | BUSHING, SLEEVE - CLAMP UP, SPECIAL                                     | 0.19                         | ALLOY STEEL     | 232.2222408                  |
| <a href="#">4M106-03007</a> | 18386  | Part.CAGE-Code.76301 | BUSHING, SLEEVE - CLAMP UP, SPECIAL                                     | 0.19                         | ALLOY STEEL     | 232.2222408                  |
| <a href="#">4M106-03009</a> | 18387  | Part.CAGE-Code.76301 | BUSHING, SLEEVE - CLAMP UP, SPECIAL                                     | 0.19                         | ALLOY STEEL     | 232.2222408                  |
| <a href="#">4M106-03016</a> | 18391  | Part.CAGE-Code.76301 | BUSHING, SLEEVE - CLAMP UP, SPECIAL                                     | 0.19                         | ALLOY STEEL     | 232.2222408                  |
| <a href="#">4M106-03023</a> | 18397  | Part.CAGE-Code.76301 | BUSHING, SLEEVE - CLAMP UP, SPECIAL                                     | 0.191                        | ALLOY STEEL     | 232.2222408                  |
| <a href="#">4M106-03036</a> | 18401  | Part.CAGE-Code.76301 | BUSHING, SLEEVE - CLAMP UP, SPECIAL                                     | 0.19                         | ALLOY STEEL     | 232.2222408                  |
| <a href="#">4M106-04049</a> | 18410  | Part.CAGE-Code.76301 | BUSHING, SLEEVE - CLAMP UP, SPECIAL                                     | 0.25                         | ALLOY STEEL     | 232.2222408                  |
| <a href="#">4M106-24003</a> | 18462  | Part.CAGE-Code.76301 | BUSHING, SLEEVE - CLAMP UP, SPECIAL                                     | 1.7515                       | ALLOY STEEL     | 232.2222408                  |
| <a href="#">BACB10AN04</a>  | 1164   | Part.CAGE-Code.81205 | BEARING, BALL, AIRFRAME, SINGLE ROW, PRECISION GRADE, HEAVY DUTY        | 0.25                         | ALLOY STEEL     | 121.1111208                  |
| <a href="#">BACB10AN05</a>  | 2230   | Part.CAGE-Code.81205 | BEARING, BALL, AIRFRAME, SINGLE ROW, PRECISION GRADE, HEAVY DUTY        | 0.3125                       | ALLOY STEEL     | 121.1111208                  |
| <a href="#">BACB10AP03</a>  | 1165   | Part.CAGE-Code.81205 | BEARING, BALL, AIRFRAME, SINGLE ROW, PRECISION GRADE, INTERMEDIATE DUTY | 0.19                         | ALLOY STEEL     | 121.1111208                  |

## A staged approach to progressive data creation using CDS software can yield faster return on investment.



# The Convergence Data Toolset allows diverse groups of people to collaborate on data structure that can meet the needs of the enterprise, not just a single business.

Can you approve that attribute added by Jim yesterday?



**Design For Retrieval - [Classification Manager]**

File Reports Actions Category View Help

Toolbox

Applications

- Home Page
- Classification Manager
- Attribute Manager
- Item Loader
- Item Classifier
- Data Developer
- Item Assignment
- Data Validator
- Search
- Administrative Tools

Root

- Casing Exit
- Cementing
- Common components
  - Balls
    - Bearings
    - Coil Springs
    - Disc
    - Fasteners
    - High pressure fittings
    - Hinges
    - Orifice jet, nozzle
    - Seals
    - Shaped components
    - Shims
    - Subs
    - Unclassified
  - Configured Products
  - Data acquisition products
  - Electronic Components
  - Endeca Test
  - Flow control
  - IHS Test
  - Other
  - Particle retention screens
  - Raw materials
  - Sand control
  - To Be Classified
  - Wellhead and Flowcontrol Products

Category: \Root\Common components\Balls

Name Balls

Description Solid spheres.

| Attributes              | Properties                   | Responsible Users | User Resources | Files        | Descriptions |
|-------------------------|------------------------------|-------------------|----------------|--------------|--------------|
| Attribute Name          | Description                  | Status            | Measure        | Groups       |              |
| ALTERNATE DESCRIPTION   | An alternate description...  | In Work           | NO UNITS       | Endeca Prope |              |
| ALTERNATE METRIC DES... | Metric version of the alt... | In Work           | NO UNITS       | Endeca Prope |              |
| BALL DIAMETER           | Diameter of ball express...  | In Work           | ft             |              |              |
| BUSINESS UNIT           | The business unit that h...  | In Work           | NO UNITS       |              |              |
| COATING                 | to entr...                   | Pending           | NO UNITS       |              |              |
| DEFAULT UNITS           | s of me...                   | In Work           | NO UNITS       |              |              |
| DESCRIPTION - CLEAN 60  | d descri...                  | In Work           | NO UNITS       | Endeca Prope |              |
| GROSS WEIGHT            | the ite...                   | In Work           | oz             |              |              |
| INVENTORY TYPE          | line inve...                 | In Work           | NO UNITS       |              |              |
| ITEM REVISION           | cates th...                  | In Work           | NO UNITS       |              |              |
| LEGACY DESCRIPTION      | bonfrom ...                  | In Work           | NO UNITS       | Endeca Prope |              |
| LEGACY REVISION LEVEL   | his ex...                    | In Work           | NO UNITS       |              |              |
| LIFECYCLE STATE         | Indicates whether the ite... | In Work           | NO UNITS       | Endeca Globe |              |
| LONG DESCRIPTION        | This attribute will be ex... | In Work           | NO UNITS       | Endeca Prope |              |
| MAKE-BUY                | Designates if the item is... | In Work           | NO UNITS       |              |              |
| MANUFACTURER NAME       | The name of the manuf...     | In Work           | NO UNITS       |              |              |
| MANUFACTURER PART N...  | Part number assigned b...    | In Work           | NO UNITS       | Endeca Prope |              |
| MATERIAL                | A classification of a pro... | In Work           | NO UNITS       |              |              |
| MATERIAL GRADE          | The particular material g... | In Work           | NO UNITS       |              |              |

Authorization Type Any Accept / Any Reject

Status In Work

Created Admin Oct 25 2004 6:58PM

Last Updated rtuner Dec 5 2004 12:14PM

Terminal Node Yes Inherit Attributes Yes Inherit Security Yes

Remember where I am when I close the application ☐ Awaiting approval 2

12/5/2004 12:25:02 PM / /-/- rtuner / cdsCatalogDemo

2.6.2.0 132/0

Please review the new attribute I added to the classification yesterday.



## Product data must be transformed into high quality information to become a strategic asset for your business.

### Before

| Part Number     | Old Description               |
|-----------------|-------------------------------|
| T41XCH0375-0250 | 3.750 - 2.500 110 KSI         |
| T41XCS0375-0250 | 3.750 X 2.500 TUBE            |
| T41XHH0375-0250 | 3.750/2.500 110 KSI           |
| T41XRC0375-0250 | 3.750 X 2.500                 |
| T41XRC0375-025B | TBE3.750 X 2.5                |
| 23032           | 03.750 02.500 41X 110-140Y CD |
| 23134           | 03.750 02.500 41X105Y         |
| T4X14H0375-0250 | 3.750 X 2.500 110 KSI         |

### After using DFR

| Part Number     | New Description                              | OD    | ID    | Grade   | Spec  |
|-----------------|--|-------|-------|---------|-------|
| T41XCH0375-0250 | Tube, 3.750 OD 2.500 ID 4130-45 Q-T CD WS412 | 3.750 | 2.500 | 4130-45 | WS412 |
| T41XCS0375-0250 | Tube, 3.750 OD 2.500 ID 4130-45 Q-T CD WS412 | 3.750 | 2.500 | 4130-45 | WS412 |
| T41XHH0375-0250 | Tube, 3.750 OD 2.500 ID 4130-45 Q-T CD WS412 | 3.750 | 2.500 | 4130-45 | WS412 |
| T41XRC0375-0250 | Tube, 3.750 OD 2.500 ID 4130-45 Q-T CD WS412 | 3.750 | 2.500 | 4130-45 | WS412 |
| T41XRC0375-025B | Tube, 3.750 OD 2.500 ID 4130-45 Q-T CD WS412 | 3.750 | 2.500 | 4130-45 | WS412 |
| 23032           | Tube, 3.750 OD 2.500 ID 4130-45 Q-T CD WS412 | 3.750 | 2.500 | 4130-45 | WS412 |
| 23134           | Tube, 3.750 OD 2.500 ID 4130-45 Q-T CD WS412 | 3.750 | 2.500 | 4130-45 | WS412 |
| T4X14H0375-0250 | Tube, 3.750 OD 2.500 ID 4130-45 Q-T CD WS412 | 3.750 | 2.500 | 4130-45 | WS412 |

- The data is inconsistent and incomplete
- There are duplicate items but they are not recognizable
- Not enough information is available to determine the characteristics of the product
- Most likely a new part number will be created and ordered

- The data is complete, accurate and easy to use
- Products are grouped and easy to find by their characteristics leading to higher reuse
- It's easy to see the duplicate items for inventory reduction
- The data can be analyzed for consolidation, strategic sourcing and other purposes