



# PRODUCT CLASSIFICATION DATABASE (PCDB)

Version 0.5

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## Revision History

Each time this document is modified, increment the version number appropriately and add a new row to the table below. In the Comments column, make sure to document the changes that were made and any deficiencies or outstanding issue the document may still have.

Revision Number	Revision Date	Author	Notes
<b>0.1</b>			Initial draft
<b>0.2</b>	11/2012	S. Lockett	Added section on Multi-function parts
<b>0.3</b>	11/28/2012	PCdb Work Group	Revised examples and wording for Multi-function section
<b>0.4</b>	2/19/2013	T. Mitchell	Added rules for PartsToUse and Use to the Data Relationship Rules section. Added figures to explain Use and Multi Purpose parts. Other general formatting and document clean-up.
<b>0.5</b>	1/6/2014	T.Mitchell	General document cleanup and example updates. Added definitions for new PCdb tables.

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## Table of Contents

Purpose .....	3
Use Case .....	3
Scope .....	3
Publication .....	4
Subscriber Notification Policy.....	4
90 Day Notification .....	4
60 Day Notification .....	4
30 Day Notification .....	4
Field Definitions .....	4
Data Relationship Rules .....	7
Syntax Rules.....	7
Prohibited Content in Part Terminology .....	9
Change Request Petitions and Publication .....	10

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## Purpose

The Products Classification database (PCdb) is an industry-specific, coded, hierarchy of product terminology intended to support the efficient exchange of electronic catalog and product information in the vehicle aftermarket.

## Use Case

The PCdb Part TerminologyID is a required field in every application record of an electronic catalog file in the ACES format. This data element serves to classify and identify what part terminology is the subject of the application catalog record.

The PCdb Part TerminologyID is also a required data field in every product information item record in the PIES format. Since PIES is used to describe non-application products and supplies as well as parts, the PCdb includes many terms beyond “auto parts.”

## Scope

The PCdb supports the exchange of all electronic catalog data (application parts) as well as all application and non-application product attribute information in the vehicle aftermarket. The PCdb supports data exchange between aftermarket trading partners. Therefore, the PCdb must include any product categories and types that may be traded by aftermarket parties. For this reason, the scope of the PCdb includes automotive parts and supplies, heavy duty components, tools and equipment, specialty parts, accessories and components, non-application parts, shop supplies and accessories, appearance products, functional fluids and chemicals – virtually any product that may be stocked or traded in the aftermarket industry.

Recognizing the importance of product-specific performance and physical attributes in modern, online marketing, AAIA has undertaken the development of a Product Attribute database (PADB). The role of the PADB is to define valid attributes specific to popular automotive products and standardize the method for expressing those attributes (units of measure, valid values, etc.). Such things as performance and physical attributes, grade, quality or construction of a product are addressed by the Product Attribute database (PADB) and, therefore, outside the scope of the PCdb.

## Publication

The PCdb is published twice monthly in the following formats: Access 2007, ASCII, Sql Server 2000, Sql Server 2008, and MySQL.

Publication Release notes are posted with the month-end publication and are available at [www.aftermarket.org/Technology/ACES/ACES-news](http://www.aftermarket.org/Technology/ACES/ACES-news)

## Subscriber Notification Policy

### 90 Day Notification

- Change to PCdb Schema
- Moving Part Terminology to another Category and/or Subcategory
- Deleting a Part Terminology

### 60 Day Notification

- Change in a Part Terminology that results in an ID change
- Change in a Part Terminology's Use

### 30 Day Notification

- Small-scale cleanup efforts of invalid records

## Field Definitions

The latest ER diagram for the PCdb is available online. The latest Field Definition Document for the PCdb is available online.

**Category (CategoryID and CategoryName):** PCdb Categories are a logical collection of related vehicle components that perform together as a system or a top-level classification of similar non-application products. For example, Cooling System or Tools and Equipment

**Subcategory (SubCategoryID and SubCategoryName):** PCdb Subcategories are vehicle assemblies or subsystems related to a high level Category, and intermediate classification of related non-application

products. For example, Water Pump and related Components or Tire Service Tools. This allows the user to filter across categories.

**Part Terminology (PartTerminologyID and PartTerminologyName):** Part Terminology (formerly referred to as Part Type) defines the most granular product classification of vehicle parts and components as well as all other non-applications parts, supplies, accessories, components and consumables traded in the vehicle aftermarket industry. For example, Water Pump Pulley or Tire Valve Stem Replacement Tool

**Position:** The Position data element is only referenced in an ACES catalog application record. The field refers to the position of a part or component, from a forward-facing view, relative to others of the same part terminology on a vehicle. For example, Left Front for Brake Caliper or Inner for Wheel Bearing

**Position: N/A.** The default Position value for all Part Terminologies is N/A (not applicable). This is the appropriate Position when: 1) there is only one instance of the part type in the application or 2) when multiples of the same part type are symmetrical and there is no need to differentiate the position of one from another of the same part type. It is possible for a Part Terminology to have one or more valid positions and for N/A to be valid; it depends on how the part is engineered to the vehicle.

Part Terminology	QTY per car	Position	Explanation
<b>Water Pump</b>	1	N/A	There is only ONE on the vehicle
<b>Brake Caliper</b>	1	Left Front	There is only ONE LF Caliper
<b>Brake Caliper</b>	1	Right Front	There is only ONE RF Caliper
<b>Spark Plug</b>	4	N/A	The position of one Plug to the next is irrelevant

**Use:** Use indicates if a Part Terminology is valid for an ACES application file (UseID 1) or for a PIES product information file (UseID 2).

An example of how to use “Use” has been outlined in Figure 1. In this example, Multi Purpose Light Bulb would be given UseID 2 (PIES) record because it does not provide application specific information. Side Marker Light Bulb would be given UseID 1 (ACES) because it is application specific.

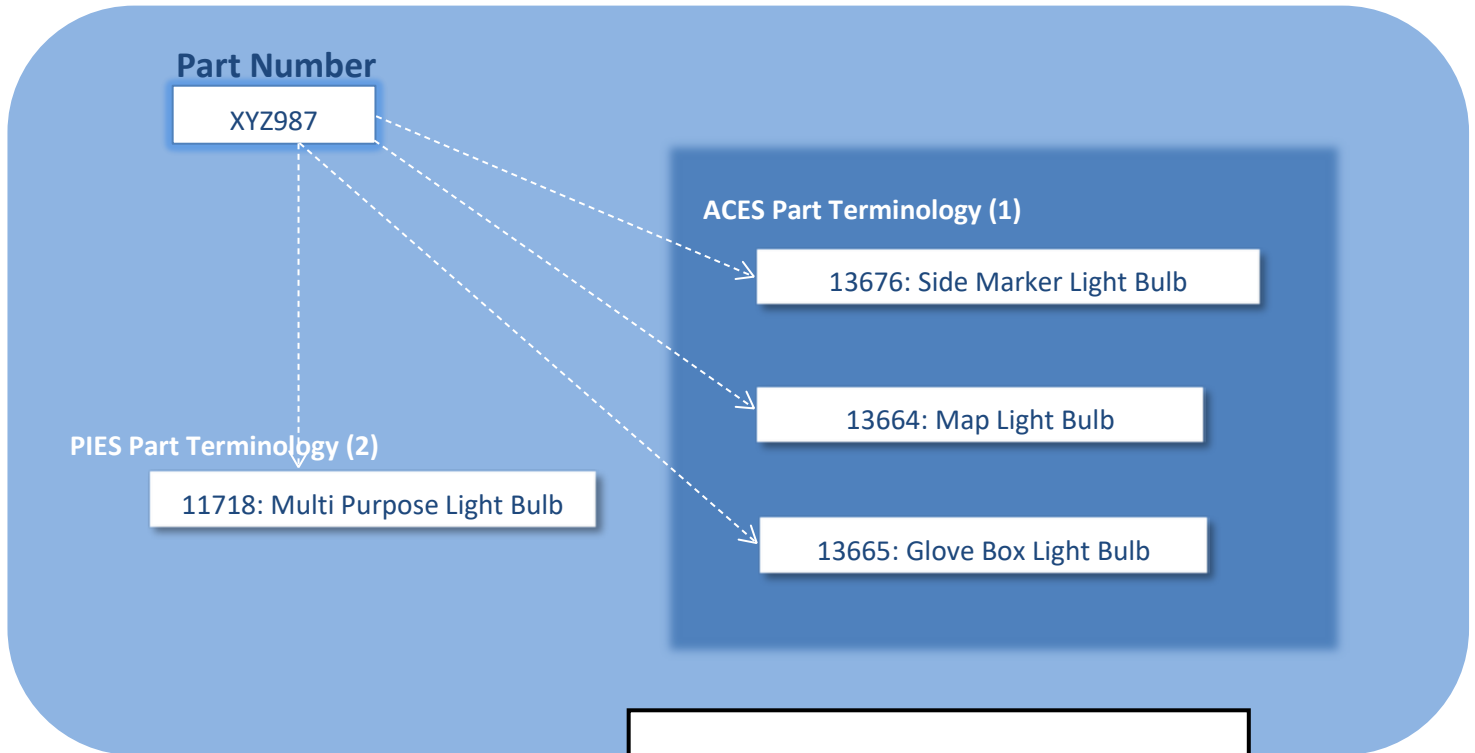


Figure 1: Use Example

The PartsToUse table would look like this:

PartsToUse	
PartTerminologyID	UseID
11718	2
13676	1
13664	1
13665	1

**PartsDescription:** Allows the subscriber to submit a reason and or description when adding a new Part Terminology. This allows the reviewer more context and information regarding this part terminology request and is informational in nature. If the request is approved, the content in this table will not be edited or changed by the reviewer and will be published as submitted.

**PartsRelationship:** Defines a relationship between a Multi Purpose part terminology, utilized in a PIES file, to the related application specific part terminology, utilized in an ACES file.

**PartsToAlias:** Defines a relationship between a part terminology and its aliases used through the automotive aftermarket industry.

**PartsSupersession:** Defines a relationship between a part terminology that is no longer in use and its replacement part terminology.

## Data Relationship Rules

1. Every Part Terminology record is associated with only one Subcategory which is in turn associated with only one Category. This does not limit users of the database in listing parts under multiple categories in their user interface. The standard does not impose limits on “presentation” of content – merely on the standardized classification of terminology.
2. No Part Terminology shall be orphaned or left without a Subcategory and Category relationship
3. No Part Terminology shall have more than one Subcategory and Category relationship
4. Any Part Terminology may have one or more Positions associated with it, in addition to the ‘N/A’ Position
5. It is acceptable for a PartTerminologyID to carry a UseID of both 1 and a 2 in the PartsToUse table. These cases represent Part Terminologies that are suitable for both ACES and PIES and therefore they will be allowed to carry both Product Attributes and Positions.
6. No Part TerminologyID shall exist without a Use relationship.
7. Part Terminologies used explicitly for PIES can only have a Position of N/A associated with that part terminology.

## Syntax Rules

1. **Independent Terminology:** A Part Terminology record must be self-describing and not dependent on its relationship to a Category or Subcategory for context or uniqueness.
2. **Case:** All entries in the PCdb are Title Case – with the first letter of each word capitalized
3. **Redundancy:** The PCdb includes one unique Part Terminology record for each item in the database. The PCdb does not include brand-specific references or jargon. The PCdb includes the PartsToAlias table to record aliases or alternative terminology. As a reference coding table, the PCdb includes a single unique record of each part terminology – not an exhaustive list of alternative terminology



4. **Consistency:** Terminology of similar part types should be classified consistently throughout the database. For example, all Brake Hardware part types should be classified in the Subcategory: Brake Hardware, Category: Brake
5. **Abbreviations:** Commonly used abbreviations are widely used in commerce and recognized in the automotive industry. AAIA has a standardized and recognized list of acceptable abbreviations as part of the ACES documentation packet. These are the only abbreviations approved for use in the PCdb
6. **Acronyms:** Acronyms are acceptable for use in the PCdb when they are: a) widely used and recognized by most in industry b) refer to the generic (not brand-specific) part terminology and c) are used consistently throughout the PCdb for the same part type. For example, EGR is approved for reference to Exhaust Gas Recirculation provided it is used consistently for EGR Valve, EGR Valve Gasket, EGR Valve Flange, etc.
7. **Multi Purpose Parts:** A Multi Purpose part is a single physical item that is used in more than one way on one or more vehicles.

- a. One use of the PCdb is to classify products in an application catalog data file (ACES). In this scenario, it is important to classify Multi Purpose parts exactly as they are used on a vehicle. The use of the part on the vehicle is how the search will be done. Therefore, the PCdb must include all of the uses of a part in all vehicle applications.

**Example** - A specific electrical Relay is used in more than one way across multiple vehicle applications. A valid ACES catalog record must refer to the Relay by the specific use of the product on the vehicle, i.e., Wiper Motor Relay, Horn Relay, Window Lift Relay. Therefore, the PCdb supports these specific terminologies for Multi Purpose Parts. Terms that describe what it “does”.

- b. The PCdb is also used to classify product information exchanged by way of the PIES specification. In this scenario, it is appropriate to classify a Multi Purpose part with a more general term that describes what the product “is”, regardless of how it is used.

**Example** - In the example above the same Relay product performs multiple tasks on a vehicle. The attributes of the product do not change when it performs multiple functions. Therefore, the PCdb also includes a Multi Purpose part terminology that describes what the product “is”, irrespective of what it “does”. In this example, the product is always a “Relay”.

- c. **Parts to Use Table:** The PartsToUse table indicates whether each Part Terminology is appropriate for an ACES application file, a PIES Product Information file or both. The Part To Use table joins Part Terminology ID's with Use codes from the Use table in valid combinations. For examples refer to Figure 1.
  - i. Use ID 1 indicates the Part Terminology is appropriate for an ACES application file
  - ii. Use ID 2 indicates the Part Terminology is appropriate for a PIES product information file
  - iii. If the Use is unclear it will be coded for both ACES and PIES (Use ID 1 and Use ID 2)
8. **Use of Position / Location:** Reference to a position should only be part of the Part Terminology name when it is an integral component of the name and helps define an item that is found in only one location in all applications.
9. **Position Descriptions:** Position Descriptions are used to clarify the exact location of a particular part application when the same part type may be used more than once on a vehicle. Positions always refer to a forward-facing perspective. For example, it is helpful to indicate that Part#1 is the Left Front Disc Brake Caliper and Part#2 is the Right Front Disc Brake Caliper

## Prohibited Content in Part Terminology

The Part Terminology name should not include extended information that is conveyed in other elements of either ACES or PIES or the Product Attribute Database (PADB). Examples of prohibited content include:

1. OE Manufacturer references - A/C O-Ring Green - Ford FX15 Compressor Ports
2. Aftermarket Brand references - Kicker Shock Bracket Kit - Rear – Rancho
3. Product Attribute references - A/C Compressor & Component Kit - New
4. Application Segment references - Intermediate Unit Bushing – Marine
5. Position references - Headlight Bezel Set - Right Front
6. Product Material references - A/Trans Kit, Sealing Ring (Teflon)
7. Product Construction references - Oil Bath Seal - Scotseal - Front - L/D Truck

## Product Classification Database (PCDB) Rules & Policies

8. Size references - Exhaust Pipe Extension 5'
9. Color references – Mud Flap, Black
10. No XML reserved characters
11. No use of the word “Style” (reserved for PADB use)

## Change Request Petitions and Publication

Subscribers and Guests are eligible to make online change requests and petition for new Part Terminologies and Positions in the PCdb through the interface at [www.enhancedstandard.com](http://www.enhancedstandard.com).

Subscribers are able to submit bulk PCdb requests through the interface at [www.enhancedstandard.com](http://www.enhancedstandard.com)

Approved changes are generally published within two weeks of approval.