# COMMONWEALTH OF PENNSYLVANIA

#  HEALTH & HUMAN SERVICES DELIVERY CENTER

# INFORMATION TECHNOLOGY STANDARD

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| Name of Standard: | Number: |
| **Class Words** |  **STD-DMS010** |
| Domain:  | Category: |
| Data | **Data Administration** |
| Date Issued: | Issued by Direction Of: |
| **11/24/04** |  \\dhs\share\oa\bis\DTE\DIR\Standards\JArnold.jpg |
| Date Revised: **04/07/2020** | **Jon Arnold, Chief Technology Officer** **Health & Human Services Delivery Center**  |

**Abstract:**

In order to meet Data Administration (DA) standards, each column name or field name must have a class word at the beginning of their name. The class word designates the type of data that is being stored in the column or field. The only exception to this rule is for mainframe fields; these have a header in the format of RXXX, where X can be any number, followed by the class word. This document details the class words and provides examples for each.

**General:**

The purpose of this document is to establish definitions and usage for class words. These standards apply at the database level on all platforms for the Department of Human Services (DHS).

**Standard:**

**Address (ADR)**

The address class word represents geographical information. Geographical information refers to a specific location in various ways. It could contain the latitude or longitude coordinates or postal mailing address.

Street address, city, state, zip code, Uniform Resource Locator (URL), email, latitude, and longitude all use the ADR class word designation. URLs and email addresses are considered to be addresses because they are translated to a physical Internet Protocol (IP) address for a server, or to a specific place on the server.

The following examples illustrate the usage of the **ADR** class word:

* ADR\_LINE\_1 – First Line Address
* ADR\_LINE\_2 – Second Line Address
* ADR\_LINE\_3 – Third Line Address
* ADR\_CITY – City Address
* ADR\_STATE – State Address
* ADR\_ZIP\_MAIN – Main Zip Address
* ADR\_ZIP\_EXTN – Extension Zip Address
* ADR\_URL\_PAGE\_HOME – Home Page Uniform Resource Locator Address
* ADR\_EMAIL\_CNTC – Contact Electronic Mail Address

**Amount (AMT)**

The amount class word represents monetary amounts and should not contain data that is used to represent quantities (for example, the number of products in the warehouse) or any other identifying numerical data. Amounts can be represented in the database as a numerical data type, a textual data type, or can be an actual money data type if available.

The following examples illustrate the usage of the **AMT** class word:

* AMT\_BUDGET – Budget Amount
* AMT\_ADJMT\_TOTAL – Total Adjustment Amount
* AMT\_DISCT – Discount Amount
* AMT\_RATE\_PMT – Payment Rate Amount
* AMT\_BNFT – Benefit Amount

**Audio (AUD)**

The audio class word represents audio files, such as .MP3 files, stored in the database. Typically, the column is stored as a binary or raw format in the target database. The audio file can be in any format as long as it is supported by the database system.

The following examples illustrate the usage of the **AUD** class word:

* AUD\_BULL\_NEWS – News Bulletin Audio
* AUD\_INSTRNS\_APPLN – Application Instructions Audio

**Code (CDE)**

The code class word contains any number of encoded representations, directly relates to a local reference table, or indirectly relates to an encoded value defined by a third-party source. Codes can be text values or numeric. Numerical values can contain leading zeroes.

A code represents encoded values as long as those values do not conflict with the indicator (IND) class word. As an example, a gender code may use M, F, and U to mean Male, Female, and Unknown. In this case, M is an encoded representation for Male. Alternatively, these code values could be numerical values as well.

The following examples illustrate the usage of the **CDE** class word:

* CDE\_GENDER - Gender Code
* CDE\_COUNTY - County Code
* CDE\_CITSHP - Citizenship Code
* CDE\_COMN\_ALTV - Alternative Communication Code

**Count (CNT)**

The count class word stores numerical values that represent a calculated value of an object, or from a specific instance of time. The count class word usually is a summation of multiple objects at a specific instance of time, the quantity or total count value of an object. The time value is either a future point in time, or at the current moment the calculation is generated.

Count does not represent all numerical values. A count must be calculable but does not need to be used in a calculation. The numerical value can be stored as a numeric or text in the database.

The following examples illustrate the usage of the **CNT** class word:

* CNT\_RECS\_TOTAL – Total Records Count
* CNT\_BYTES\_SENT – Sent Bytes Count
* CNT\_APPLN\_SMTD – Submitted Application Count

**Document (DOC)**

The document class word represents electronic documents stored physically in a database. The document is typically stored as a binary or raw data type in the database. The document can be in any format readable by the user.

The following examples illustrate the usage of the **DOC** class word:

* DOC\_BULL\_NEWS – News Bulletin Document
* DOC\_STD\_HNET – Human Services Network Standard Document

**Date (DTE)**

The date class word represents calendar dates and other variations. Dates can be in various formats which are typically determined by the database system. Dates may also have the time concatenated to it. When both the date and time are used in a field, the date class word takes precedence.

Parts of the date may also be represented with this class word designation. For example, if only the day, month, year, or a combination is stored, this data requires the date class word also.

The following examples illustrate the usage of the **DTE** class word:

* DTE\_CREATN – Creation Date
* DTE\_CHANGE\_LAST – Last Change Date
* DTE\_BEGIN\_EFFV – Effective Begin Date
* DTE\_END\_EFFV – Effective End Date
* DTE\_RQ – Request Date
* DTE\_DOB – Date of Birth
* DTE\_YYMM\_REPORT – Report Month/Year Date
* DTE\_FY – Fiscal Year Date

**Identifier (IDN)**

The identifier class word represents a unique identifier in the system or possibly across multiple systems. This value may be an application-generated or externally-generated number.

A concatenated field created from multiple sources, is a good candidate for the identifier class word. For example, an attribute that is created from a two-digit county code followed by a seven digit sequential number is considered an identifier.

The following examples illustrate the usage of the **IDN** class word:

* IDN\_USER – User Identifier
* IDN\_CLIENT – Client Identifier
* IDN\_CASE – Case Identifier

**Image (IMG)**

The image class word represents images stored physically in the database in a binary format. Typically, the column is stored as a binary or raw format in the target database. The image can be in any format compatible with the database system.

The following examples illustrate the usage of the **IMG** class word:

* IMG\_PIC\_COUNTY – County Picture Image
* IMG\_PIC\_LIC – License Picture Image

**Indicator (IND)**

The indicator class word represents two values that are involved in a true/false scenario in the database. The values representing true or false can be any value that clearly states the true and false value such as Y/N, T/F, etc. In some database systems, Boolean or bit data type which only allows 1 or 0 values are also allowed. Indicators may also contain null values, because a null is considered an absence of a value. In addition, the indicator may define a default value, if desired. Indicators are denoted by the IND class word at the left side of the column or field name.

The following are possible value pairs that are acceptable for indicators. It is not meant as a comprehensive list but as an example:

* Y/N = Yes/No
* T/F = True/False
* 0/1 = Zero/One

The following examples illustrate the usage of the **IND** class word:

* IND\_FLAG\_MERGED – Merged Flag Indicator
* IND\_EMAIL\_DSPL – Display Electronic Mail Indicator
* IND\_RECORD\_DELTD – Deleted Record Indicator
* IND\_RECORD\_DELETE\_LOGCL – Logical Delete Record Indicator
* IND\_ACTIVE – Active Indicator

**Name (NAM)**

The name class word represents character data referencing people, places, or things. Names are generally definable, and the content is not unpredictable. In all other cases, use the Text class word. Names are identified by the NAM class word at the left side of the column or field name.

By its definition alone, the name class word seems as though it should represent an individual only. However, this is a misnomer; name is used to indicate anything that describes something else.

The following examples illustrate the usage of the **NAM** class word:

* NAM\_CNTC – Contact Name
* NAM\_EMPL – Employee Name
* NAM\_MCD – Minor Civil Division Name
* NAM\_SOURCE\_VALDN – Validation Source Name
* NAM\_TYPE\_CHANGE – Change Type Name
* NAM\_DOC – Document Name
* NAM\_OFFICE\_SHORT – Short Office Name

**Number (NBR)**

The number class word represents numerical data that is considered “common English usage.” These are only items that can be declared common across the Enterprise, rather than common to an application group or other business entity. Some of the examples of “common English usage” are:

The following examples illustrate the “common English usage” of the **NBR** class word:

* NBR\_SSN – Social Security Number
* NBR\_PHONE – Phone Number
* NBR\_LINE – Line Number

In addition, some application generated and artificially generated numbers that meet the “common English usage” guidelines can use the NBR class word, such as the following examples:

* NBR\_RECORD\_COUNTY – County Record Number
* NBR\_MPI – Master Provider Index Number

**Percentage (PCT)**

The percentage class word represents percentages. This can be a whole number value (6 for the percentage of sales tax), or the decimal equivalent (.06 representing six percent sales tax). Percentages use the designated PCT class word for the column or field name. This class word should be used strictly for percentages, and not other types of information, such as ratios, amounts, count values, etc.

The following examples illustrate the usage of the **PCT** class word:

* PCT\_OWNRSHP – Ownership Percentage
* PCT\_RECOUP – Recoup Percentage
* PCT\_AMOUNT\_DETAIL\_PMT – Payment Detail Amount Percentage

**Time (TME)**

The time class word represents an instance of, duration of, or portion of a specific time. An instance of time is an entire time value (hours, minutes, or seconds) stored in the database. The duration of time represents the amount of time something takes to occur (such as the total number of minutes or hours).

Time values can be defined as numerical in the database; however, some instances use textual data to store the value. Data representing the time uses the TME class word designation for the column or field name. If the time is part of an entire date/time concatenation, use the DTE class word instead.

The following examples illustrate the usage of the **TME** class word:

* TME\_INTV – Interview Time
* TME\_CALL\_BEST – Best Call Time
* TME\_EST\_MINUTE – Minute Estimate Time

**Text (TXT)**

The text class word represents any textual value that isn’t generally definable or has an unpredictable content. Any text data that cannot be defined as any other class word is defined with the TXT class word designation.

The following examples illustrate the usage of the **TXT** class word:

* TXT\_DESC\_DOC – Document Description Text
* TXT\_DESC\_TYPE\_PROVR – Provider Type Description Text
* TXT\_DESC\_SURVEY – Survey Description Text
* TXT\_PROMPT\_SURVEY – Survey Prompt Text
* TXT\_RESOLN\_ISSUE – Issue Resolution Text

**Video (VID)**

The video class word represents video files (.MPG, .WMV, and .MOV files) stored physically in the database. Typically, the column is stored as a binary or raw format in the target database. The video file can be in any format, as long it is a format that is supported by the database system.

The following examples illustrate the usage of the **VID** class word:

* VID\_INSTRNS\_APPLN – Application Instructions Video
* VID\_NEWS – News Video

**Open System Usage**

Database systems for the open system environment use the class words described above for column names. The name of the column must have the three character class word, for example ADR, followed by an underscore then followed by additional words or abbreviations separated by underscores.

Databases in as open system do not have any designation appearing before the class word. In the mainframe environment, this designation is needed to uniquely identify a column; however, in the open system environment, a column is uniquely identified with the following format:

  *DatabaseName.Schema/Owner.TableName.ColumnName.*

Example for SQL Server:

DisasterTrainingRegistration.DBO.T\_USER.NAM\_USER

Example for Oracle:

CISPADC.DATA\_EXCH.T\_BUY\_IN\_CMS\_RESP.NAM\_FIRST

**Mainframe Usage**

Mainframe columns and fields have a designation that appears before the class word. The database systems for the mainframe must use the class words described above for column/field names after the designated heading. Each column or field has a designation in the format of RXXX, where R is a letter designation followed by a three-digit number. The possible character designations are R and T wherein R indicates a field name and T indicates a table name, and the number is assigned by the Database Administrator.

Relational Database Management Systems (RDMS) field names are separated by dashes or hyphens. Whereas Data Management Systems (DMS) field names are separated by underscores. These separator characters appear after the mainframe designation. For example, the column could appear with the heading T100\_ADR\_INDIV or R100-ADR-INDIV.

Example for RDMS:

S20MRGPRDM.R672.R672-IND-CASE-ABAWD

Example for DMS:

S60MRGPRDM.R685.R685\_CDE\_TYPE\_SUB\_BNFTS\_POT

**Exemptions from this Standard:**

There will be no exemptions to this standard.

**Refresh Schedule:**

All standards and referenced documentation identified in this standard will be subject to review and possible revision annually or upon request by the HHS Delivery Center Domain Leads.

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**Standard Revision Log:**

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| **Change Date** | **Version** | **CR #** | **Change Description** | **Author and Organization** |
| 11/24/04 | 1.0 | N/A | Initial creation | Brian Mains |
| 2/23/2006 | 1.0 |  | Revised content | Howard Knouse |
| 5/16/2006 | 1.1 |  | Changed the content of the document to reflect the recent changes to the standards. | Brian Mains |
| 1/16/2007 | 1.2 |  | Revised content | H. Knouse |
| 7/28/2016 | 1.3 |  | Updated content. | Data Administration Unit |
| 4/07/2020 | 2.0 |  | Updated header. | Glenn McDonel |