

# CA IDMS - 19.0

## Coding in CA Culprit for CA IDMS

Date: 13-Sep-2016





This Documentation, which includes embedded help systems and electronically distributed materials, (hereinafter referred to as the "Documentation") is for your informational purposes only and is subject to change or withdrawal by CA at any time. This Documentation is proprietary information of CA and may not be copied, transferred, reproduced, disclosed, modified or duplicated, in whole or in part, without the prior written consent of CA.

If you are a licensed user of the software product(s) addressed in the Documentation, you may print or otherwise make available a reasonable number of copies of the Documentation for internal use by you and your employees in connection with that software, provided that all CA copyright notices and legends are affixed to each reproduced copy.

The right to print or otherwise make available copies of the Documentation is limited to the period during which the applicable license for such software remains in full force and effect. Should the license terminate for any reason, it is your responsibility to certify in writing to CA that all copies and partial copies of the Documentation have been returned to CA or destroyed.

TO THE EXTENT PERMITTED BY APPLICABLE LAW, CA PROVIDES THIS DOCUMENTATION "AS IS" WITHOUT WARRANTY OF ANY KIND, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NONINFRINGEMENT. IN NO EVENT WILL CA BE LIABLE TO YOU OR ANY THIRD PARTY FOR ANY LOSS OR DAMAGE, DIRECT OR INDIRECT, FROM THE USE OF THIS DOCUMENTATION, INCLUDING WITHOUT LIMITATION, LOST PROFITS, LOST INVESTMENT, BUSINESS INTERRUPTION, GOODWILL, OR LOST DATA, EVEN IF CA IS EXPRESSLY ADVISED IN ADVANCE OF THE POSSIBILITY OF SUCH LOSS OR DAMAGE.

The use of any software product referenced in the Documentation is governed by the applicable license agreement and such license agreement is not modified in any way by the terms of this notice.

The manufacturer of this Documentation is CA.

Provided with "Restricted Rights." Use, duplication or disclosure by the United States Government is subject to the restrictions set forth in FAR Sections 12.212, 52.227-14, and 52.227-19(c)(1) - (2) and DFARS Section 252.227-7014(b)(3), as applicable, or their successors.

Copyright © 2016 CA. All rights reserved. All trademarks, trade names, service marks, and logos referenced herein belong to their respective companies.

# Table of Contents

---

CA Culprit for CA IDMS Coding Guidelines .....	6
Types of CA Culprit for CA IDMS Parameters .....	7
Parameters Within Each Category .....	7
Report-Specific and Global Parameters .....	9
Edit Parameters .....	10
Functions of Each Column .....	10
Summary of Parameter Types .....	11

# Coding in CA Culprit for CA IDMS

---

As all CA IDMS report modules are coded using CA Culprit for CA IDMS parameters, some knowledge of CA Culprit for CA IDMS is required to modify the reports. This is a brief introduction to CA Culprit for CA IDMS. For more information on CA Culprit for CA IDMS, see the following manuals:

- *CA Culprit for CA IDMS Reference section*
- *CA Culprit for CA IDMS Using section*
- [CA Culprit for CA IDMS Coding Guidelines \(see page 6\)](#)
- [Types of CA Culprit for CA IDMS Parameters \(see page 7\)](#)
  - [Parameters Within Each Category \(see page 7\)](#)
- [Report-Specific and Global Parameters \(see page 9\)](#)
- [Edit Parameters \(see page 10\)](#)
  - [Functions of Each Column \(see page 10\)](#)
- [Summary of Parameter Types \(see page 11\)](#)

# CA Culprit for CA IDMS Coding Guidelines

---

CA Culprit for CA IDMS parameters are coded in an 80-column format. These general rules apply to all CA Culprit for CA IDMS parameters:

- All parameters must be coded in uppercase letters.
- Column 1 is always blank, except on a continuation line or a USE parameter. An asterisk (\*) in column 1 designates a continuation line.
- CA Culprit for CA IDMS parameters must not extend past column 72.
- Comments are introduced by a dollar (\$) sign.
- The USE parameter cannot appear in any run that includes REPORT=, =MACRO, or =COPY parameters.

# Types of CA Culprit for CA IDMS Parameters

---

There are five major categories of CA Culprit for CA IDMS parameters:

- Input definition parameters
- Output definition parameters
- Process definition parameters
- Work field definition parameters
- CA IDMS/DB retrieval parameters

## Parameters Within Each Category

Each category has a function and includes several types of parameters, as follows:

- *Input definition parameters* define the source of input for the run:

---

INPU Defines the physical characteristics of the input file or identifies the subschema for the  
T database to be accessed. A REPORT= request automatically generates an INPUT parameter.  
Runs that call report modules with the USE parameter must supply an INPUT parameter.

---

REC Defines the location, length, and data type of fields that appear in the CA Culprit for CA IDMS  
code. REC parameters are generated automatically for CA IDMS report modules.

---

SELEC Defines criteria by which records are selected for processing.  
T or  
BYPA  
SS

---

- *Output definition parameters* define the format of the report output:

---

OU Defines the physical characteristics of the output; for example, the number of characters per  
TPU line. By default, output is a printed report with 132 characters per line and 55 lines per page.  
T

---

SOR Defines the order in which records are output.  
T

---

3 Identifies a title parameter. A title parameter outputs a title at the top of each page.

---

4 Identifies a heading parameter. Headings are output under the title line, if any, at the top of  
each page.

---

5 Identifies a detail line.

---

6 Identifies a total line.

---

- *Process definition parameters* define report-specific process operations, such as arithmetic and data comparisons:

---

7 Identifies a process parameter applied to input data.

---

8 Identifies a process parameter applied to data in CA Culprit for CA IDMS's output phase of processing.

---

- *Work field definition parameters* define work fields required for report processing. Identifiers for work field parameters are **0**, **1**, and **15**.

- *CA IDMS/DB retrieval parameters* define methods to access CA IDMS/DB database records:

---

PAT Identifies record retrieval routes through the database.

H

---

KEY Identifies a key field by which to access database records directly, rather than by an area sweep.

---



## Report-Specific and Global Parameters

---

Output and process definition parameters are report-specific. A 2-digit report number, starting in column 2, must precede each parameter identifier. Work field definition parameters are either report-specific or global; GW must appear in columns 2 through 3 for a global work field.

# Edit Parameters

Parameters 4, 5, and 6 are collectively known as edit parameters. Edit parameters define where a field is output in a report. The following figure illustrates the fixed format portion of an edit parameter.

BGIN JOURNAL RECORD TYPE			
Field		Data Type	Length (in bytes)
0 1	Journal record length	binary	2 (Halfword)
2 3	Reserved (initialized to zeroes)	binary	2 (Halfword)
4 7	Journal record type BGIN	alphanumeric	4
8 F	UTC date/time stamp	binary	8 (2 Fullwords)
10 17	Journal record sequence number	binary	8 (2 Fullwords)
18 1F	Journal record qualifier	binary	8 (2 Fullwords)
20	CV number (central version only)	binary	8 (2 Fullwords)
21	Journaling version	binary	1
22 23	Reserved	binary	1
24 27	Local transaction ID (LID)	binary	2 (Halfword)
28 2B	Address of VIB	binary	4 (Fullword)
2C 33	Program name	address	4
34 3B	Date/time stamp	alphanumeric	8
3C 43	Reserved (initialized to zeroes)	binary	8 (2 Fullwords)
44 45	Transaction update quiesce level	binary	8 (2 Fullwords)
46 47	Transaction quiesce level	binary	2 (Halfword)
48 4F	Local task ID for transaction or savepoint sequence number	binary	2 (Halfword)
50 5F	User ID	binary	8 (2 Fullwords)
60 6F	External Identity	alpha	32
70 7F	Filler	alpha	8
80 8F	Journal record length	binary	2 (Halfword)
90 97	Reserved (initialized to zeroes)	binary	2 (Halfword)
98 99			
9A 9B			

Edit Parameters-10.4.5

## Functions of Each Column

The columns in the figure above function as follows:

- *Columns 2 and 3* identify the 2-digit report number.
- *Column 4* identifies the type of edit line: a heading, detail, or total line.
- *Column 5* identifies a particular definition of an edit line. Each type of edit line can have up to eight different definitions. For example, the code shown in the following figure specifies six heading lines for DREPORT 028.
- *Columns 6 through 9* identify the location of the output field on the edit line. The location can be *absolute*, with a value in the range 0001 through 0132 for a printed report, or *relative*, with a value in the range \*000 to \*999.
- *Column 10* identifies spacing associated with the edit lines. Possible values for printed output are:
  - Blank -- no blank lines
  - 0 -- one blank line
  - Hyphen -- two blank lines
  - 1 -- page eject

# Summary of Parameter Types

The following table summarizes the CA Culprit for CA IDMS parameters and indicates what each can do in modifying CA IDMS reports.

Identifier Function		Modifications
INPUT	Defines input	Modify the CA Culprit for CA IDMS buffer size or subschema name
REC	Defines fields	Modify the name, start position, length, or data type of a field
SELECT or BYPASS	Selects records	Select only records that meet certain criteria
OUTPUT	Defines output	Modify the report's line size or number of lines per page
SORT	Sorts	Modify the order in which the report presents information
3	Outputs a title	Add/delete/change the report title
4	Outputs a heading	Add/delete/change report headings
5	Outputs a detail line	Add/delete/change columns of information
6	Outputs a total line	For summary reports, add/delete/change columns of information
7	Defines input processing	Modify or add processing applied to input data
8	Defines total processing	For summary reports, modify or add processing applied to total-time data
0, 1, or 15	Defines work fields	Add if required for additional processing
PATH	Accesses database records	Modify or add to access different database records
KEY	Accesses specified database records	Add to access particular database records

The following are the CA Culprit for CA IDMS parameters that produced the sample report:

## Sample CA Culprit for CA IDMS source code and output:

```

PATHU1 00AK-012,S-010,SS-026,SSR-032,RCDACT-059,PROG-051
280 FUNC-TBL.13 'CONNECT' 'OBTAIN'
* 'DISCONNECT' 'FIND'
* 'STORE' 'ERASE'
* 'CURRENCY ACCEPTED' 'MODIFY'
* 'GET' 'BIND'
* 'FIND KEEP' 'OBTAIN KEEP'
* ' ' '$ FUNCTIONS
280 KEY-TBL.12 7 43 11 3 12 2 15 8 5 14 23 63 $ KEY TO FUNCTION TBL
280OUTPUT D LP=51
280SORT S-NAME-010 SS-NAM-026 SSR-NAM-032
* PROG-NAME-051 PROG-VER-051 FUNC-TBL.DISP STAR-HD
283 DATA DICTIONARY REPORTER
28410001 'DREPORT 028'
28410053 'IDMS RECORD ACTIVITY REPORT'

```

```

28420001-STAR-HD
28420045 STAR-HD
28420089 STAR-HD
28430102 '---- D A T E ----'
28440001 'SCHEMA'
28440010 'VER'
28440016 'SUBSCHEMA'
28440027 'RECORD'
28440060 'PROGRAM'
28440069 'VER'
28440075 'USAGE'
28440095 'TIMES'
28440102 'COMPILED'
28440112 'CREATED'
28450001 STAR-HD
28450045 STAR-HD
28450089 STAR-HD
28460001 ' '
28510001 S-NAM-010
28510009 S-SER-010 FM 'ZZZZZ9'
28510016 SS-NAM-026
28510027 SSR-NAM-032
28510060 PROG-NAME-051
28510068 PROG-VER-051 FM 'ZZZZZ9'
28510075 FUNC-TBL.DISP
28510095 RA-COUNT-059 FM 'ZZZZZ9'
28510102 PROG-DATE-051
28510111 DATE-CREATED-051
287010 IF PATH-ID NE 'U1' DROP $ DROP N/A PATHS
287020 IF S-NAM-010 EQ 'NON IDMS' DROP $ NON IDMS FILES ONLY
287100 $ TABLE LOOKUP TO DETERMINE SUBSCRIPT FOR FUNCTION TABLE
287 MOVE RA-FUNCT-059 TO IND $ KEY FOR LOOKUP
287110 CALL US62 (KEY-TBL 'N' 8 12 'S' IND DISP)
287120 IF DISP NE 0 150 $ IF FOUND, TAKE
287 MOVE 13 TO DISP $ ELSE SET TO BLANKS
287150 TAKE

```

**Sample report:**

REPORT NO. 28

DATA DICTIONARY REPORTER

mm/dd/yy. PAGE 1

DREPORT 028

IDMS RECORD ACTIVITY REPORT

\*\*\*\*\*  
 \*\*\*\*\*

```

          ---- D A T E ----
SCHEMA  VER  SUBSCHEMA  RECORD          PROGRAM  VER  USAGE
        TIMES  COMPILED  CREATED
*****
*****

```

```

EMPSCHEM  100 EMPSS01  COVERAGE          EMPINQ          1 BIND
              1 mm/dd/yy mm/dd/yy
EMPSCHEM  100 EMPSS01  DENTAL-          1 BIND
CLAIM      EMPINQ          1 mm/dd/yy mm/dd/yy
EMPSCHEM  100 EMPSS01  DEPARTMENT        D3          1 BIND
              1 mm/dd/yy mm/dd/yy
EMPSCHEM  100 EMPSS01  DEPARTMENT        D4          1 BIND
              1 mm/dd/yy mm/dd/yy
EMPSCHEM  100 EMPSS01  DEPARTMENT        D6          1 BIND
              1 mm/dd/yy mm/dd/yy
EMPSCHEM  100 EMPSS01  DEPARTMENT        D6          1 OBTAIN
              1 mm/dd/yy mm/dd/yy
EMPSCHEM  100 EMPSS01  DEPARTMENT        EMPINQ       1 BIND
              1 mm/dd/yy mm/dd/yy
EMPSCHEM  100 EMPSS01  DEPARTMENT        TESTPROG     1 BIND
              1 mm/dd/yy
EMPSCHEM  100 EMPSS01  DEPARTMENT        TESTPROG     1 OBTAIN
              2 mm/dd/yy

```

# CA IDMS - 19.0

EMPSCHM	100	EMPSS01	EMPLOYEE	D3	1 BIND
	1	mm/dd/yy	mm/dd/yy		
EMPSCHM	100	EMPSS01	EMPLOYEE	D3	1 FIND
	1	mm/dd/yy	mm/dd/yy		
EMPSCHM	100	EMPSS01	EMPLOYEE	D3	1 MODIFY
	1	mm/dd/yy	mm/dd/yy		
EMPSCHM	100	EMPSS01	EMPLOYEE	D4	1 BIND
	1	mm/dd/yy	mm/dd/yy		
EMPSCHM	100	EMPSS01	EMPLOYEE	D4	1 ERASE
	1	mm/dd/yy	mm/dd/yy		
EMPSCHM	100	EMPSS01	EMPLOYEE	D4	1 FIND
	1	mm/dd/yy	mm/dd/yy		