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image: DB2 Image Copy Reader Access Method  
Version 1

CML00036-01

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## 1 Introduction

The `image` access method is a module which implements the `recio` [1] provider interface allowing the `recio` user interface to support a record stream from a DB2 Image Copy dataset. The access to the image copy is performed by the `imageread` library and support compressed as well as non-compressed backups of table spaces. The image copy dataset is expected to reside on an z/OS MVS platform.

One instance of an `image` access method `recio` stream allows a program to read the data from a given object (determined by OBID) row by row.

## 2 Open String Specification

As with all `recio` library open specification strings, three components comprise the open string: access method, object, and options name-value pairs.

For the `image` access method the access method name is `image`.

### 2.1 Open Specification Access Method Name

The access method name should be specified as `image`.

### 2.2 Open Specification Object Name

The object name should be a suitable file stream name on the local system. This is a dataset which contains the DB2 table space image copy.

### 2.3 Open Specification Option Name-Value Pairs

Consult the access method definition file for the option name-value pairs supported by the `image` access method. The access method definition file also supplies details of the default values (if any) of the options.

### 2.4 Open String Specification Examples

The following is an example of an `image` access method open string in which the object id of the required table in the table space image copy is 245; the file that contains the DCLGEN to be used to get the table column definitions is being referred to through a

DD-statement called `DECLARE`; and the image copy data is being referred to through a DD-statement called `SYSBACK`.

```
image (SYSBACK,dclgen=' dd:DECLARE' ,obid=245)
```

### 3 image Access Method Definition

The access method definition file should be consulted for the description of the options and their default values. This includes the description of the options. The access method definition file should also be consulted for the processing modes supported by the access method.

Refer to the `recio` library documentation for interpreting the contents of the access definition file.

```
access image(dclgen,obid);

-- File: IMAGE.amd
--
-- This file contains teh access method definition used for reading
-- DB2 table space images. The records in the image which are returned
-- by the read operations of this access method use a supplied OBID to
-- return the records from the desired table and the access method
-- uses a declare of this table in order to put the columns of the
-- table back together in the correct format.
--
-- Author: Stephen R. Donaldson [stephen@codemagus.com].
--
-- Copyright (c) 2008 Code Magus Limited. All rights reserved.

-- $Author: zboxrel $
-- $Date: 2008/04/04 21:56:45 $
-- $Id: IMAGE.amd,v 1.3 2008/04/04 21:56:45 zboxrel Exp $
-- $Name: $
-- $Revision: 1.3 $
-- $State: Exp $
--
-- $Log: IMAGE.amd,v $
-- Revision 1.3 2008/04/04 21:56:45 zboxrel
-- Fix CSECT name in Makefile
--
-- Revision 1.2 2008/04/04 15:45:22 zboxrel
-- Updates for z/OS Build
--
-- Revision 1.1.1.1 2008/04/02 17:59:04 stephen
-- Add source to repository
--
```

```
modes seq_input, skip_input;

implements open;
implements close;
implements read;
implements tell;

describe dclgen as
    "The dclgen parameter is required to give the meta-data describing the "
    "declaration of the table to be extracted. This is required so that "
    "columns definitions are known and the image reader can put the columns "
    "back together in a format which mapped by the corresponding copybook. "
    "See dcl2book for getting a copybook layout corresponding to the "
    "declare table.";

describe obid as
    "The obid paramater is used by the access method to determine which "
    "DB2 object by OBID is to be access in the table space. Only records "
    "from this table in the table space image copy are returned by the "
    "read operations.";

constrain dclgen as ".*"; -- "[A-Za-z][A-Za-z0-9:\.]*$";
constrain obid as "[0-9][0-9]*$";

path = ${CODEMAGUS_AMDLIBS} "%s";
module = "imageam" ${CODEMAGUS_AMDSUFDL};
entry = imageam_init;

end.
```

## 4 Environment

The location and format of the access method definition file is required to be specified by the environment variable CODEMAGUS\_AMDPATH. This environment variable supplies a pattern to the full path of where access method definition (or amd) files are located. The format of the environment variable is that of a path with a %s appearing in the position in which the access method member name should appear. For example, on MVS systems this might have the form:

```
CODEMAGUS_AMDPATH='DNCT00.SRDA1.AMDFILES(%s)'
```

On a Unix-based system, the value might be set in a shell profile file such as:

```
export CODEMAGUS_AMDPATH=$HOME/bin/%s.amd
```

On Windows systems, the value might be supplied from the environment variables and look something like:

```
C:\CodeMagus\bin\%s.amd
```

## References

- [1] recio: Record Stream I/O Library Version 1. CML Document CML00001-01, Code Magus Limited, July 2008. [PDF](#).