

Team SYS-ED

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From	Serena Software, Inc.
Subject:	IMS DB and Control Blocks Programming

Ongoing Support: Questions from software developer.

It's good to see that you are in "hot pursuit" of IMS.

Here are my responses to your questions.

Question 1:

On page 68, under the 'Database Characteristics', there is a one byte segment code "that uniquely identifies the segment." What can I do with this one byte? Is this the level number? If it is truly unique, could I use this for non-unique segments?

Answer:

This is the segment code which uniquely defines the segment type. As there are only 8 bits, we have a maximum of 255 segment types. It is not the level number (max 15). It won't be much use for non-unique segments.

Question 2:

I tried to add a root to your database:

```
U---+-----1-----+-----2-----+-----3-----+-----4--
U      FUNC  SEG      SSA
S 1 1 1 1 1
L      ISRT  OAKCUST (CUSTKEY EQ013)
L      DATA 016 0001551 SMITH
```

But received status code AJ. It works if I leave the (CUSTKEY EQ013) off. Is this because I am inserting a root?

Answer:

Yes, when you insert a segment, the lowest level SSA cannot contain any values other than command codes. In this case, you are inserting a root, so no SSA values should be specified. IMS finds the key information by inspecting the I/O area. There is a similar example on page 140.

Question 3:

On page 98 there is a discussion of DDB subsystems. Is this what we were running with DDLT0? I am a bit confused as to the meaning of 'Batch'. Does this mean BMP, or what we using with DDLT0 (and our product FDM)? In other words, if you make DL/1 calls from your own address space and IMS is not even up, what is that called? The flow on page 166, is this true for BMPs, DDLT0, or both?

Answer:

DBB systems are standalone batch (a.k.a. DL/1). We were running these with DDLT0 which is why we had to supply the JCL for the IMS datasets. No online IMS system need be running.

BMP is also a form of batch, but one which can access the online IMS databases.

Question 4:

The diagram on page 166 is good for batch. Most of it seems to be valid for BMPs and MPPs, though I have not seen any similar official diagrams.

Answer:

I recommend that you read the section on Generalized DL/1 Problem Analysis in the Diagnosis Guide & Reference (page 224 in the Version 8 manual).

Question 5:

On page 112, examples of secondary DBDs and PCBs using the AUTHOR, PLAY, CHARACTER example, shouldn't the LCHILD in PLAYDBD be PLAYDBDI and not PLAYIDX (line 00101000)?

Answer:

Yes, this example does not use consistent names, though it is still valid. I used a member name of PLAYDBDI but coded NAME=PLAYIDX on the DBD statement. PLAYIDX also appeared in the HISAM UNLOAD control statement on line 00900000 of page 116.

Question 6:

On page 146 there is a list of IMS utilities. Do you have something that also gives the names of the utilities? Is there a manual you can suggest?

Answer:

I enclose an update for page 146. There are two utilities manuals: one for System, and another one for Database and Transaction Manager.

Question 7:

Is there JCL or something in the class notes that will show me how to take the HDAM data base you created and make a HIDAM data base from the same data?

Answer:

There is a similar example on page 72 for creating a HIDAM database and its index. Change OSAM to VSAM on the first line. When you run the DBD (JCL in my JCL library) the system will recommend the VSAM definition parameters. Follow those, define the clusters, and add the corresponding DD statements to your DDLT0 JCL. I don't currently have access to a live IMS system, so I can't run a similar job and send you the results.

Question 8:

What is the difference between the PSB prefix on pages 223 and 240?

Answer:

The PSB prefix on page 223 refers to details and work areas used by the application program. This one is probably more use to you.