



**IBM File Manager for z/OS IMS feature**

Program number 5655-V52

**Mentor Workshop**

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This is the tutorial for the IMS™ feature of IBM's File Manager for z/OS®, one of the IBM zSeries® problem determination tools.

- **Introduction**
- **File Manager IMS option settings**
  - Option settings
- **Edit and browse access modes**
  - Using BMP or DLI access
  - Using a dynamic or static PSB
- **Browsing or editing an IMS database**
  - Starting browse
  - Database navigation
  - Display database information
  - Display formats without a template



In this section, you will learn how to use dynamic and static PSBs.

## Dynamic and static PSBs



- A PSB (Program Specification Block) is a load library member that defines and controls the access to IMS databases. It is made up of one or more PCBs (Program Communication Block), each of which provides access to segment types in a database.
- File Manager IMS can use either pre-built PSBs, known as static PSBs, or dynamic PSBs, which are generated by File Manager IMS.
  - A static PSB is pre-defined, and access is may be controlled by the database administrator
  - A dynamic PSB is generated by File Manager IMS
- Your installation may allow *only* static or dynamic PSBs for some IMS subsystems

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When a program accesses an IMS database, it uses a PSB (program specification block), to communicate with IMS. A PSB contains one or more PCBs (program communication blocks). A PCB acts as a map to the segments in a database so a program can access them, and may also control which segments can be accessed. Like any other program, File Manager uses a PSB when it accesses an IMS database.

You can have File manager use a PSB that is already pre-built on your system. In File Manager terminology, that is a "static PSB". Or you can have File Manager create a PSB automatically for you, which is called a "dynamic PSB".

Your installation may allow you to use only static or dynamic PSBs for certain subsystems, and that is controlled by the File Manager installer or database administrator.

## Static PSBs



- Static PSBs:
  - Are typically developed by a database administrator
  - Provide strict rules for access and control: which segments are available and what processing, such as browse or edit, can be performed on available segments
  - Typically used when connecting to a live or production environment
  - File Manager IMS uses an existing PSB load library member
    - PSB libraries are specified in your subsystem settings
- Static PSBs can be used in either BMP or DLI mode
- Advantages:
  - Processing options can limit access
  - For added security, AGN groups can be used with static PSBs
  - PSBs themselves can be secured
  - The PSB can be used for IMS batch back-out, if needed

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Static PSBs are typically created by your database administrator. They contains rules that control which segments can be accessed and what access is permitted. For example, they can control read versus update access. Administrators sometimes prefer to have people use static PSBs in production environments because of the more granular level of security they can provide.

You can use either DLI or BMP access mode, regardless of whether you use a static or dynamic PSB.

Using static PSBs can have some advantages. There can be greater control over processing options, security can be implemented with AGN groups, and access to the PSBs themselves can be secured. Also, static PSBs provide for IMS batch backout, if needed.

## Dynamic PSBs



- Dynamic PSBs:
  - Are generated by File Manager IMS, using the information found in the DBD that is specified
  - Generally allow full access to all the segments listed in the DBD and are, therefore, commonly used in test or development environments
  - Dynamic PSBs may have restricted use in production environments
  - Can only be used when the File Manager IMS system administrator has set up File Manager IMS to allow their use.
- Dynamic PSBs can be used in either BMP or DLI mode
- Advantages:
  - Easier to use than a static PSB
    - You do not have to specify a PSB name
    - You do not have to find or create a PSB
  - Dynamic PSB authorization is simpler to maintain

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Dynamic PSBs are generated automatically by File Manager, using the information in the DBD. A dynamic PSB gives you full access to all segments listed in the DBD.

For most users, dynamic PSBs are easier to use than static PSBs, for a very simple reason. You do not have to type in the a PSB name when you access a database.

Since access is provided to all segments in a database, administrators may prefer to restrict the use of dynamic PSBs in production environments. Although they are generally well suited to access in test and development environments where access restrictions may not need to be as stringent.

You can use either DLI or BMP access mode, regardless of whether you use a static or dynamic PSB.

Dynamic PSBs have some advantages. They are easier to use, since you do not have to name a PSB, or create one if an appropriate PSB does not already exist. For administrators, it can be simpler to maintain authorization to dynamic PSBs, if the more granular security controls enabled by static PSBs are not needed.

## Selection for dynamic or static PSB is made on the Edit or Browse Entry panel



Process Options Help

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FM/IMS Edit Entry Panel

Command ==>

IMS:

Subsystem name . . . IMSB PSB name . . . **USRSCN** (If static PSB)  
 Database name . . . USRSCN AGN name . . . (If BMP)

View:

Data set name . . .  
 Member . . .

Processing Options:

PSB type	Region type	Fetch DB dsnames from (if DLI)
<b>2</b> 1. Dynamic	<b>2</b> 1. DLI	<b>1</b> 1. User profile
2. Static	2. BMP	2. DFSMDA members

View usage IMS log (if DLI) Enter "/" to select option

<b>1</b> 1. New	<b>3</b> 1. Keep	- Secondary index (if dynamic PSB)
2. Existing	2. Delete	- Create audit trail
3. None	3. None	- Skip DB data set panel (if DLI)

F1=Help F2=Select dynamic or static PSB F3=Retrieve F7=Backward F8=Forward  
 F9=Swap F10=Actions F12=Cancel

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If a static PSB is used, you must specify the name

Select dynamic or static PSB

On the edit or browse "entry panel", you specify whether a dynamic or static PSB will be used. If you specify a dynamic PSB, File Manager will automatically create a temporary PSB for your use. If you are using the editor, the dynamic PSB will provide update access to all segments in the DBD. If in browse, the PSB will have read-only access to all segments.

When you specify a static PSB, you must specify the PSB in the "PSB name" field. You must know the name of the PSB you want to use. If your static PSB contains only one PCB, it will use it. And if it contains more than one PCB, when you press Enter, a list of the PCBs is displayed, and you can select one from the list. File Manager searches for static PSBs in the PSB library concatenation that is specified in your subsystem settings.

That is the end of this section, using either a static or a dynamic PSB to access a database.

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