



Highlights

- Resolves and updates IMS database prefixes involved in logical relationships
 - Utilizes a specialized buffer handler to reduce I/O, improve storage handling and improve data set allocation performance
 - Updates IMS database prefixes affected by database loads and database reorganizations
 - Program Number: 5655-M27
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IMS High Performance Prefix Resolution

Resolves and Updates Database Prefixes for Logical Relationships

IMS™ is IBM's premier transaction and hierarchical database management system. IMS was designed for high availability, superior performance, growth and capacity, and full database integrity. The ability to operate and manage this highly complex IMS system and database environment determines the Total Cost of Operation (TCO). The IBM® IMS Tools lowers TCO by equipping IMS system programmers and IMS database administrators (DBAs) with the facilities they need to effectively monitor and manage this mission-critical environment. The IBM IMS Tools provide automation, validation, and auditing of all database and transaction management activities.

The *IMS High Performance Prefix Resolution* tool resolves and updates IMS database prefixes that are involved in logical relationships when they are affected by database loads or database reorganizations. The *IMS High Performance Prefix Resolution* tool uses a specialized buffer handler to realize superior performance.



IMS Prefix Resolution

The *IMS High Performance Prefix Resolution* resolves and updates IMS database prefixes that are involved in IMS database logical relationships. The tool performs this work in two steps: IMS Prefix Resolution and IMS Prefix Update. The IMS Prefix Resolution function is a direct replacement of the standard *IMS Database Prefix Resolution utility (DFSURG10)*. The IMS Prefix Update function is a direct replacement for the standard *IMS Database Prefix Update utility (DFSURGP0)*.

IMS Database Solution Key Component

The *IMS High Performance Prefix Resolution* tool is in the *IMS Database Solution Pack* as shown in Figure 1.



Figure 1: IMS Prefix Resolution in the IMS Database Solution

Step 1 of 2: IMS Prefix Resolution

During IMS Prefix Resolution, the tool immediately creates a data set to resolve the logical relationship pointers that are defined for the IMS database. The *IMS High Performance Prefix Resolution* tool is integrated with the *IMS Index Builder* product to resolve secondary index pointers, too. The *IMS High Performance Prefix Resolution* tool uses a number of special work files to eliminate I/O and reduce data set allocations to improve the performance of IMS database prefix resolution.

Step 2 of 2: IMS Prefix Update

During IMS Prefix Update, the tool updates IMS database prefixes that are affected by database loads, database reorganizations, or both. It can run as a standalone step or together with IMS Prefix Resolution. There is a special buffer handler that improves the performance of IMS Prefix Update over the standard *IMS Database Prefix Update utility*. If the IMS database is registered to DBRC, the IMS Prefix Update step will issue DBRC Reorganization notifications to indicate the IMS database prefixes were updated.

Generates Statistical Reports

The *IMS High Performance Prefix Resolution* tool creates reports showing the activities performed. The Statistics report is shown in Figure 2. These reports are stored in the *IMS Tools Knowledge Base Repository*.

LOGICAL PARENT DATABASE SEGMENT		LOGICAL CHILD DATABASE SEGMENT		# OF LOGICAL PARENTS WITH LOGICAL CHILDREN		NUMBER OF LOGICAL CHILDREN	DISTRIBUTION OF LOGICAL PARENTS BASED ON # OF LOGICAL CHILDREN	
LOGICAL PARENT DATABASE SEGMENT	LOGICAL CHILD DATABASE SEGMENT	WITH LOGICAL CHILDREN	WITHOUT LOGICAL CHILDREN	# OF LOGICAL CHILDREN	# OF LOGICAL PARENTS			
DB01RENO	SEG0101	DB02DORO	SEG0201	38764	11099	38764	0	11099
							1	38764
DB02DORO	SEG0202	DB01RENO	SEG0102	73433	20772	38764	0-791	94199
							792-1583	5
							7128-7919	1

Figure 2: IMS High Performance Prefix Resolution Statistics Report

For more information

To learn more about the IBM IMS Tools product line, please contact your IBM representative or IBM Business Partner, or visit: ibm.com/software/data/db2imstools/products/ims-tools.html

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