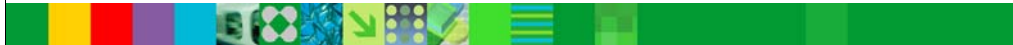




IMS 13

IMS/Tools IMS v13 Update IMS Migration Workshop

Information Management software

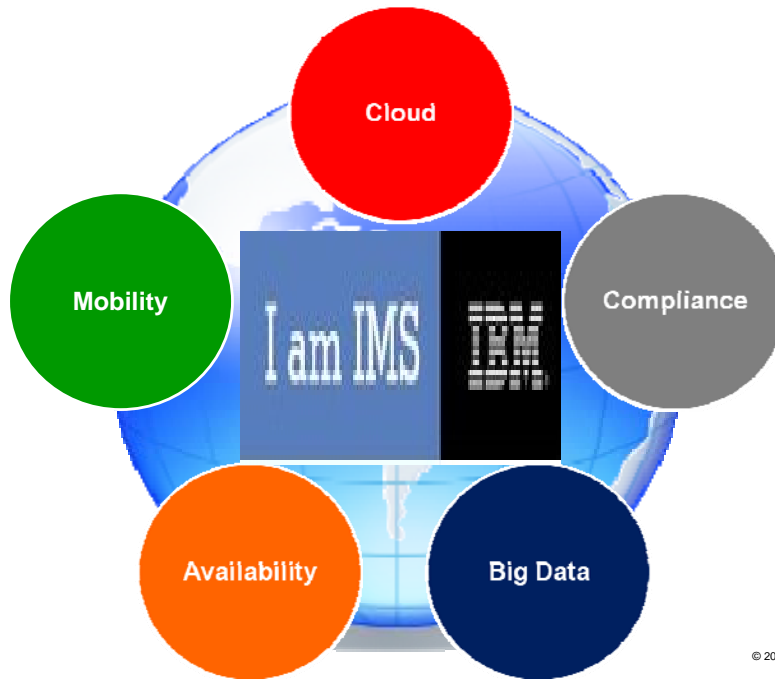


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I am IMS

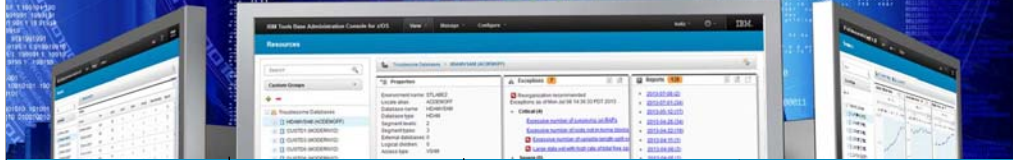


Business Forces Affecting IMS



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IMS Tools modernization and autonomics



IMS Database Solution Pack for z/OS

- Autonomics
- IMS Online Reorg Facility
- IMS DB Reorganization Expert
 - Unload, Load, Index Build, Prefix Resolution/Update
- IMS HP Image Copy
- IMS HP Pointer Checker
- IMS Library Integrity Utilities
- HALDB Toolkit

IMS Fast Path Solution Pack for z/OS

- Autonomics
- IMS HP Fast Path Utilities
- IMS DB Repair Facility
- IMS HP Image Copy
- IMS Library Integrity Utilities

IMS Recovery Solution Pack for z/OS

- IMS HP Image Copy
- IMS Database Recovery Facility
- IMS HP Change Accumulation
- IMS Index Builder
- IMS DRF Extended Functions

IMS Performance Solution Pack for z/OS

- IMS Connect Extensions
- IMS Performance Analyzer
- IMS Problem Investigator

IMS Tools Base for z/OS

Data Base Administration

- IMS Sequential Randomizer Generator

Utility Management

- IMS Cloning Tool
- IMS Database Control Suite

Backup and Recovery

- IMS HP Image Copy
- IMS DEDB Fast Recovery
- IMS Recovery Expert V2

Performance Management

- IMS Buffer Pool Analyzer
- IBM Transaction Analysis Workbench
- IMS Network Compression Facility

System / TM Administration

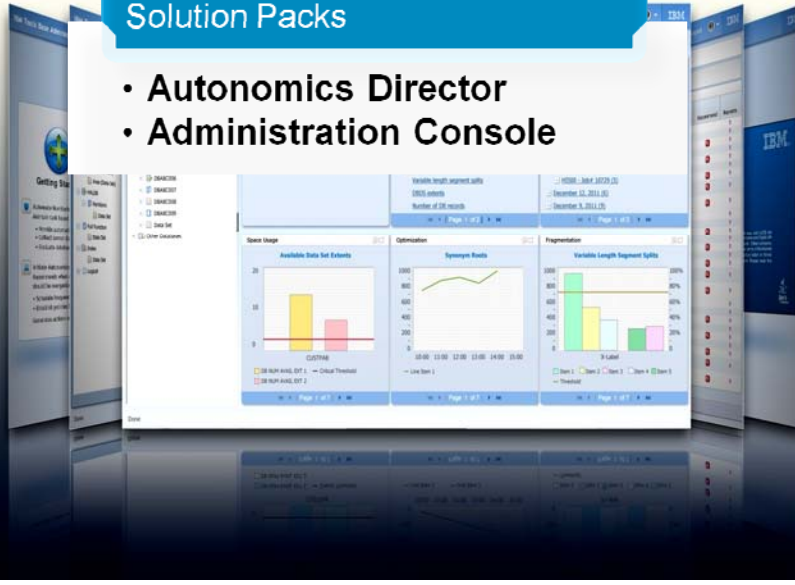
Application Management

Regulatory Compliance

- System
 - IMS Command Control Facility
 - IMS ETO Support
 - IMS HP Sysgen Tools
 - IMS Queue Control Facility
 - IMS Workload Router
- TM
 - IMS Configuration Manager
 - IMS Sysplex Manager
- Batch Terminal Simulator
- Program Restart Facility
- Guardium ITAP for IMS
- IBM Infosphere Guardium Data Encryption for DB2 and IMS Databases

Solution Packs

- **Autonomics Director**
- **Administration Console**

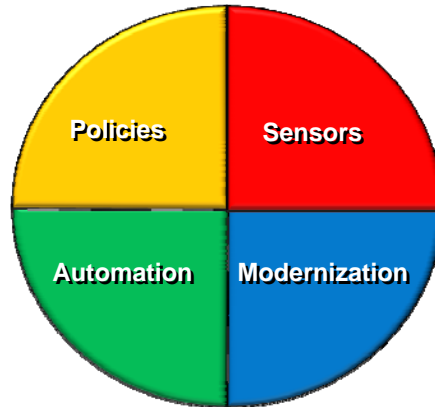


IMS Tools Autonomics Vision

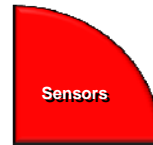


Putting information to work

- Sensors collect resource statistics
- Policies evaluate sensor data and identify potential problems
- Automation orchestrates the collection and evaluation of sensor data
- Modernization presents an interactive modern interface for managing the system



Sensors: Collecting the Basic Information You Need

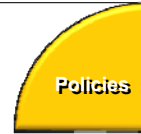


- Statistical point-in-time sensor data on your FF/FP Databases
 - Stored in IMS Tools Knowledge Base repository
 - Historically maintained per user specifications
 - Over 60 separate data elements related to space usage, optimization, and fragmentation
 - data set extents, DASD volume usage, data set free space, roots distribution, RAP usage, CI/CA splits, and IMS free space, etc

- Two methods of collection:
 - Standalone database Sensor utilities for full-function and Fast Path databases
 - Integrated with existing IMS Tools

- Integrated Tools support
 - High Performance Image Copy, High Performance Pointer Checker
 - Fast Path Analyzer, Fast Path Online Pointer Checker

Policies: Using Sensor Data to Make Decisions



- Policy definitions are used to evaluate specific database states
 - Threshold values are compared against sensor data for a given database or group of databases
 - When thresholds are met or exceeded, exceptions occur

- Works “out of the box”
 - Ships with predefined policies and threshold values
 - Full ISPF interface provided for policy management

- Customizable to fit your shop
 - You can define your own sets of threshold values
 - Customize the messages sent when exceptions do occur
 - Specify who receives which messages and how
 - WTO, e-mail, or text

Automation: Delivering on our Vision



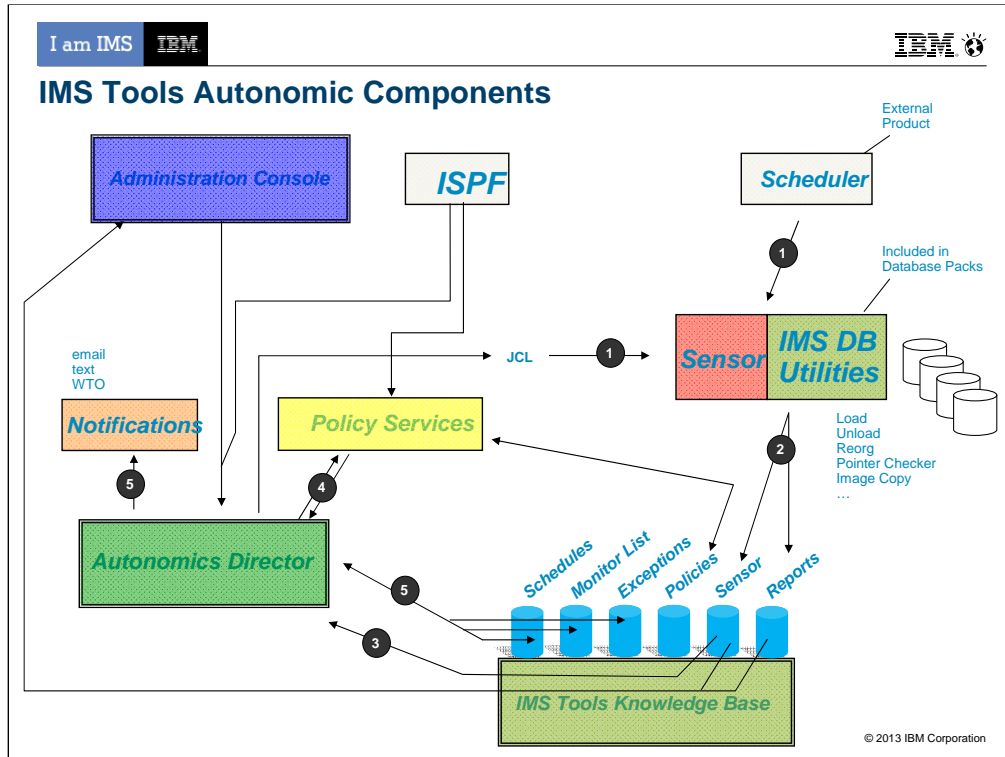
Automation

- IBM Tools Autonomics Director 1.3 (Passive)
 - Automates collection and analysis of Sensor Data
 - Recommends when databases should be reorganized
 - With email or text notifications
 - Provides a scheduling feature that allows you to control how frequently sensor data is collected and how frequently policies are evaluated
 - Flexible scheduling around pre-defined PEAK times

- IBM Tools Autonomic Director 1.4 (Active)
 - Actively initiate recommended actions on user-defined database groups
 - Discovery feature for identifying related database groups
 - Ability to manage and coordinate reorganization of multiple IMS database groups as if reorganizing a single database
 - Flexible scheduling only in pre-defined Maintenance windows



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1. Utility Jobs (with embedded sensors) are triggered either through a traditional Job scheduler or from the Autonomics Directory (based on predefined schedules and databases in the monitor list)
2. Upon completion Utilities store new sensor data into the ITKB repository
3. New data in the repository triggers a notification to Autonomics Director
4. Autonomics Director grabs the new data and evaluates it calling the Policy Services.
5. Exceptions, identified by policy services, are recorded into the exceptions list, optionally notifications are triggered by the exceptions (recommendations based on Autonomics Director logic are also recorded with the exceptions)

ISPF can currently drive Autonomics Director (to define schedules, monitor lists, exceptions, on-demand sensor runs, on-demand reorgs) and Policy Services (to setup and tweak policies)

Admin Console can currently drive Autonomics Director (to define schedules, monitor lists, exceptions, on-demand sensor runs) and talk to ITKB to display sensor and reports

Future Admin Console plans support to drive Policy Services and Notifications (likely only manage notification lists and send WTO, as email/text can be sent directly from Admin Console)

IMS Administration Console

Changing the face of the platform



IMS Administration Console Goals

Modernization

- Provide a single holistic, easy-to-use interface to manage IMS systems and databases
 - Consolidate information from various tools to paint a more complete picture of IMS systems and databases
 - Leverage the latest web technologies for a richer user experience
 - Access from anywhere via the Internet using standard web browsers
 - Prepare the next generation of IMS DBAs and System Programmers through an integrated, context sensitive help system

- Begin with integration of our Autonomics Solutions
 - ...Extend integration to support all our IMS Tools

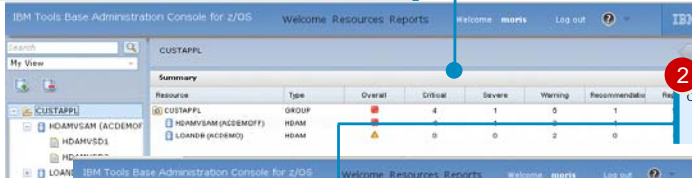


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IMS Tools Administration Console Overview

1 Summary Table for a FFDB

Check the summary of latest FFDB space diagnosis performed by Autonomics Director



2 Exceptions Widget

Check the itemized diagnosis results for the resource



3 Help Widget

Read the help for each of the detected exceptions

4 Reports Widget

Look at DB Solution Pack utility reports to see detailed analysis of the space usage of the subject area.

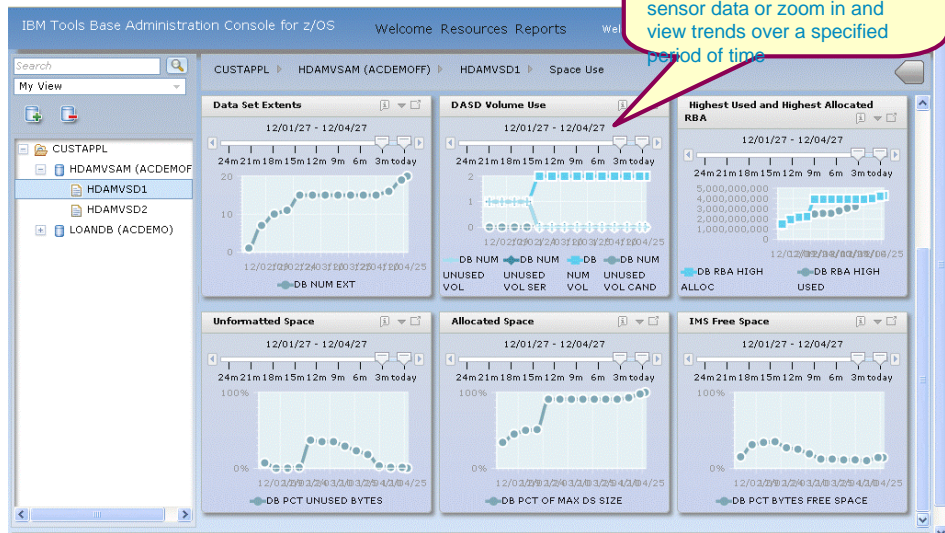
5 Sensor Widget

Look at the trend of specific sensor data values

Main dashboard for a FFDB

Data Set Space Usage Charts

Note: all line graphs have an integrated time slider so you can view the most recent sensor data or zoom in and view trends over a specified period of time



IMS AD/C Tools Supporting IMS V13

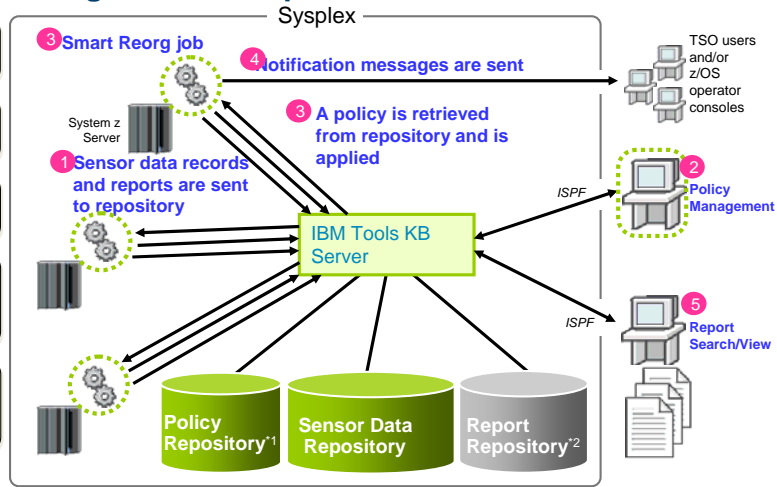
Product Name	V.R.M	PID	V13 Support	APAR / PTF
IBM Tools Base	1.3.0	5655-V93	1/2013	Gen Exits: PM75246 / UK90548 TOSI: PM75247 / UK90611 HWDCE: PM75481 / UK90489 Scrub Utility: PM79984 / UK90846

Database Solution Pack

- **Autonomics**
- **IBM Administration Console**
- Online Reorg Facility
- DB Reorg Expert
- HP Unload
- HP Load
- HP Prefix Resolution
- Index Builder
- HP Pointer Checker
- HP Image Copy
- IMS Library Integrity Utility
- HALDB Toolkit

IMS Database Reorganization Expert for z/OS

1. Sensor Data Collection
2. Reorg policy Definition
3. Conditional Reorganization
4. Exception Notification and Reporting
5. Tracking exceptions and reorgs



- All information are stored in and managed by IMS Tools KB repositories
- Sysplex-wide access to these repositories is supported by IMS Tools KB Server

*1: ITKB Input Repository is used as the Policy Repository.

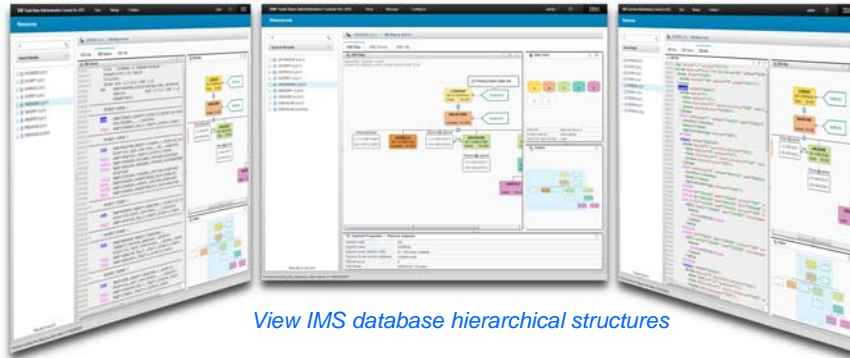
*2: ITKB Output Repository is used as the Report Repository.

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IMS Library Integrity Utilities : DBD Map Viewer in Administration Console

New Utility

- DBD Map Viewer is an LIU extension for Administration Console
- It provides visualized IMS Database Structures in Web Browser
- New Functions
 - DBD Map Viewer
 - DBD/PSB/ACB Compare
 - ACBLIB Analyzer
 - Integrity Checker



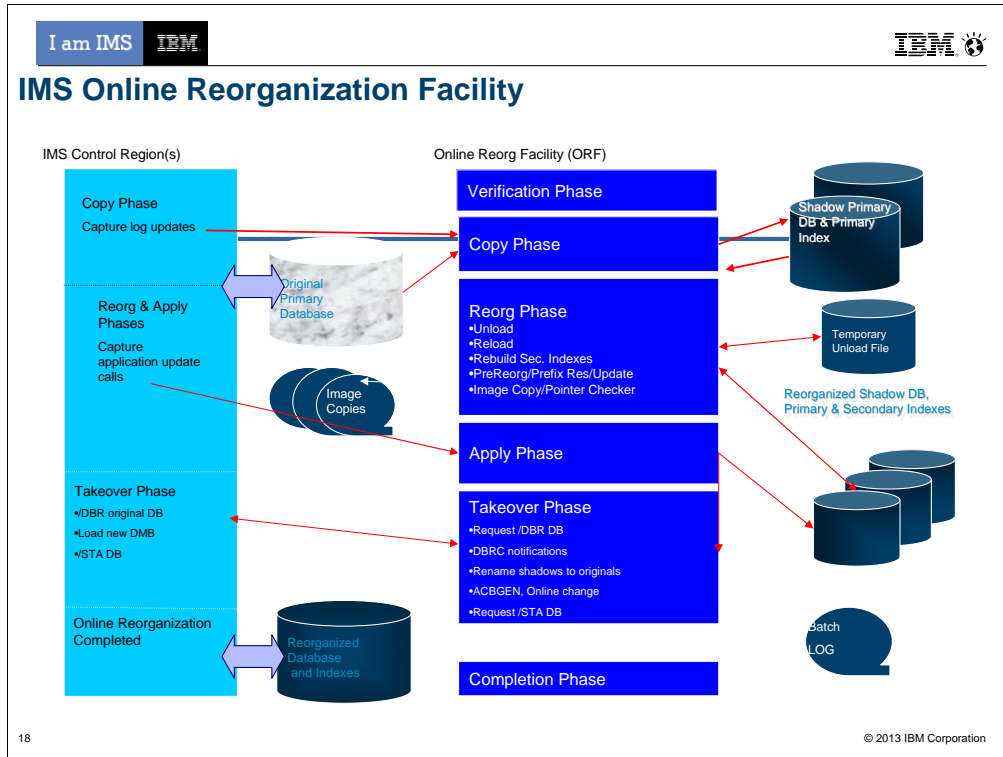
View IMS database hierarchical structures

View DBD Macro sources

View Database XML document

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The second new utility is DBD Map Viewer. It is an add-on for Administration Console of IBM Tools Base. I will say “AC” for short of Administration Console. In the AC environment, DBD Map Viewer provides visualized IMS DBD Map in GUI. The key point of the displayed DBD is regenerated from the binary code in the DBD library. It has three main views DBD Map, DBD Source, and DBD XML that are designed for Database Administrators.



Data Sharing Environments fully supported

Allows DBD changes to be implemented without manual intervention after reorganization

Complete restart-ability once in the Takeover Phase

Controlling Takeover

Delay, Abend, Window

Interface to PRF/Region controller front-end for pausing BMPs

Supports Internal Logical Relationships

Reorg Index ONLY

Near Online Unload

Integration with HALDB Conversion & Maintenance Utilities provides Online Conversion

IMS HALDB Toolkit for z/OS

...Support for Application Development

- Inside the application:
 - Dynamic DFSHALDB Statement Build
 - Partition Selection API
- Managing Test Environments:
 - Cloning DBRC Definitions
 - Copy HALDB definitions to different RECONS
 - Backup DBRC definitions
 - Testing without DBRC

```
----- IMS HALDB Toolkit -----
Command -->

                USER Definition for CKOE1

User name .....: Test User

USER (for DSNPREFIX) creation rules:
  Use USER field
  Use TSO Userid ( CKOE1 )
  Y Create from TSO Userid using pattern
  ****

Dataset name (DSNPREFIX) creation rules:
  USR.....: CKOE
  HLQ.....: DBSMS.CK1HC
  Rule.....: HLQ SYS USER DBD PART (HLQ,SYS,USER,DBD,PART)
  Result....: DBSMS.CK1HC.IMSP.CKOE.dbd.part.A60001
```

IMS HALDB Toolkit for z/OS ...Conversion Tooling

- Conversion:
 - Low skill requirement
 - Convert from:
Full Function, User
Partitioned, PDB,
Fast Path DEDB

- ISPF Interface
- Testing of partition selection exits
- Single step batch
- Integration with Online Reorg Facility allows near online conversion

```
-----IMS HALDB Toolkit-----
Command ---->

                          Partition Definition Rules
Combine Database records:  5000 (number of database records)
Main DB Partition:       2 1 Fixed Number of Partitions      1
                        2 2 Fixed Partition Size (MB)         2048
                        3 Ask during Conversion
                        4 Specify High Keys
Index Partition:         2 1 Fixed Number of Partitions      1
                        2 Fixed Partition Size (MB)         1024
PDB Conversion:          2 1 Use Existing Keys or Partitions
                        2 Create new Partition boundaries
                        3 Ask during Conversion
DEDB Conversion          1 1 Same Number of Partitions
                        2 New Partition Boundaries
Additional Partitioning Layouts to be Created?
                        2 1 Yes
                        2 2 No, Use the one created during Collect
```

IMS HALDB Toolkit for z/OS

...Maintaining your HALDB DBs

- **HALDB Maintenance**
 - Consolidate or split partitions
 - Heal Index Pointer
 - Load a Single Partition
 - Delete a Single Partition
 - Merge HALDBs
 - Add empty partition to end of HALDB
- **HALDB Analyzer**
 - Analyze HALDB Constructs
 - Extract Root Keys
- **System Utilities**
 - Split Unload File
 - ILK Rebuild
 - ACBLIB report
 - Create DBD Source

IMS Database Solution Tools Supporting IMS V13

Product Name	V.R.M	PID	V13 Support	APAR / PTF
IMS Database Solution Pack	1.1.0	5655-S77	NA	New release required
	1.2.0	5655-S77	NA	PTFs required for standalone products
IMS HALDB Toolkit	3.2.0	5655-N46	1/2013	PM73162 / UK83980
IMS Database Reorganization Expert *	4.1.0	5655-S35	1/2013	PM75249 / UK90493
IMS HP Load *	2.1.0	5655-M26	1/2013	PM75254 / UK90459
IMS HP Pointer Checker *	3.1.0	5655-U09	1/2013	HPPC: PM75255 / UK90496 DBRF: PM78910 / UK90495
IMS HP Prefix Resolution *	3.1.0	5655-M27	1/2013	PM75256 / UK90563
IMS HP Unload *	1.2.0	5655-E06	1/2013	PM75257 / UK90419
IMS Library Integrity Utilities *	2.1.0	5655-U08	1/2013	PM75259 / UK90553
IMS Online Reorganization Facility	1.2.0	5655-H97	1/2013	PM75260 / UK90554

* Indicates that the pack component is sold also as a standalone product

IMS LIU supports the new DBVER keyword in IMS 13 in the LIU functions - Compare/Mapper/Reversal/Consistency Check/Advanced ACBGEN.

IMS Fast Path Solution Pack

- **Autonomics Director**
- **IMS HP FP Utilities**
 - FP Advanced Utilities
 - FP Online Utilities
- **IMS DB Repair Facility**
- **HP Image Copy**
- **IMS Library Integrity Utility**

Autonomics: Sensor data collection and notification

IMS FP Solution Pack

- Implemented DB Sensor capability in FPA/FPO Tools and HP Image Copy
 - Sensor data can be collected as part of analyze, reorg, or image copy
 - Sensor data collection can be notified to Autonomics Director

DB Sensor function

- FP Advance Tool
- FP Online Tool
- HP Image Copy
- Standalone Sensor

IBM Tools Base

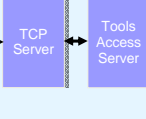
Administration Console



Open Env.

z/OS Env.

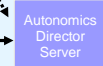
Distributed Access Infrastructure (DAI)



• Store sensor data (and reports)

• Notify of sensor data

Autonomics Director (+ Policy Services)



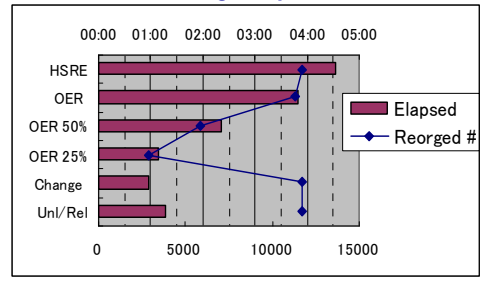
- Policy-based DEDB area diagnosis

Fast Path Solution Pack – Reorganize



- Online Reorganization (OER)
 - Reorganizes only the UOWs based on the user-defined thresholds
 - Reduces the reorgs time to specify maximum number of UOWs
- Offline tools (FPA Change, Unload/Reload)
 - Reduces the reorgs time if you can take offline the DEDB areas

Fast Path Area Reorgs Elapsed Time



HSRE: IMS HS Reorg Utility (DBFUHDR0)

IMS FP Database Solution Tools Supporting IMS V13

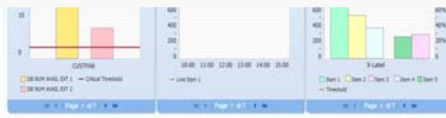
Product Name	V.R.M	PID	V13 Support	APAR / PTF
IMS Fast Path Solution Pack	1.1.0	5655-W14	NA	New release required
	1.2.0	5655-W14	1/2013	Pack only; PM75252 / UK90549 PTFs required for standalone products
IMS DEDB Fast Recovery	2.2.0	5655-E32	1/2013	PM75251 / UK90239

* Indicates that the pack component is sold also as a standalone product



IMS Database Products

- IMS Cloning Tool



IMS Cloning Tool



- Clones IMS systems (includes all databases)
 - Uses volume-based fast replication, including:
 - FlashCopy (IBM,EMC,HDS), TimeFinder/Snap(EMC), SnapShot (IBM,STK), Onsite Mirrors, Software Point-in-Time
 - Performs the necessary operations so that the data can be used by the cloned IMS system
 - IMS Cloning Tool takes an existing IMS system (complete installation and system generation process completed) and creates a new, or cloned, IMS system from it without having to repeat the entire installation and system generation processes
- Refreshes specific or sets of IMS databases
 - Uses data set based fast replication, including:
 - FlashCopy (IBM,EMC,HDS), TimeFinder/Snap(EMC), SnapShot (IBM,STK)
 - Performs the necessary operations to enable the cloned databases to be used on the same or another IMS system

IMS Tools Supporting IMS V13

Product Name	V.R.M	PID	V13 Support	APAR / PTF
IMS Cloning Tool	1.1.0	5655-U91	1/2013	PM73059 / UK91106

* Indicates that the pack component is sold also as a standalone product



IMS Recovery Solution Pack

- IMS Database Recovery Facility
- IMS HP Change Accumulation
- HP Image Copy
- IMS DRF Extended Functions



Recovery Administration

- DRF Extended Functions provides six unique features which:
 - Create clean recovery points
 - Locate existing recovery points
 - Recovery Health Check
 - Verify needed recovery assets
 - Condition RECON data sets for disaster recovery
 - Issue IMS commands via batch

Health Checker Report

DBD	DDN/AREA	TYPE	FUNCTION	HEALTH CHECKER MESSAGE(S)
F2O1P1	F2O1P11	FF	CARUN	CA group has no valid CA run *
H1O1P31	H1O1P31A	HALD	ICNEED	Image Copy is Needed
H1O1P33	H1O1P33A	HALD I	CNEED	Image Copy is Needed

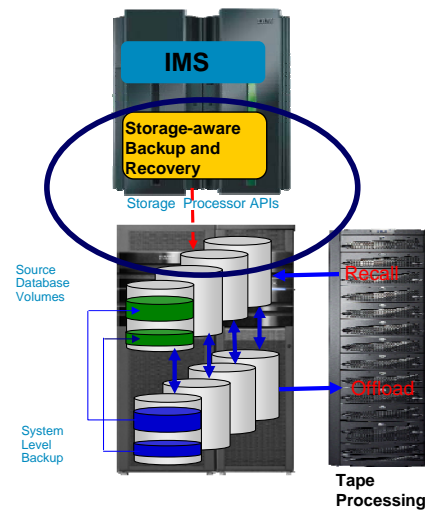
IMS Recovery Expert for z/OS, V2.1

What is it?

•is a storage-aware backup and recovery solution that integrates storage processor fast-replication facilities with IMS backup and recovery operations to allow instantaneous backups with no application downtime, reduce recovery time, and simplify disaster recovery procedures while using less CPU, I/O, and storage resources.

What's its value to customers?

- Reduced cost of backup using less CPU, I/O and storage resources
- Simplification and standardization of Disaster Recovery processes
- Faster time-to-market for new IMS applications



32

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Features and Functions?

Backup entire IMS systems instantaneously with no application downtime.

Recover quickly and easily using intelligent recovery managers for local and remote recovery support.

Enjoy effortless IMS backup and recovery management through an easy to use ISPF interface.

Use less CPU, I/O, and tape resource than image copy.

Automatically perform backup validation to achieve successful recoveries – every time.

Use one backup for multiple purposes.

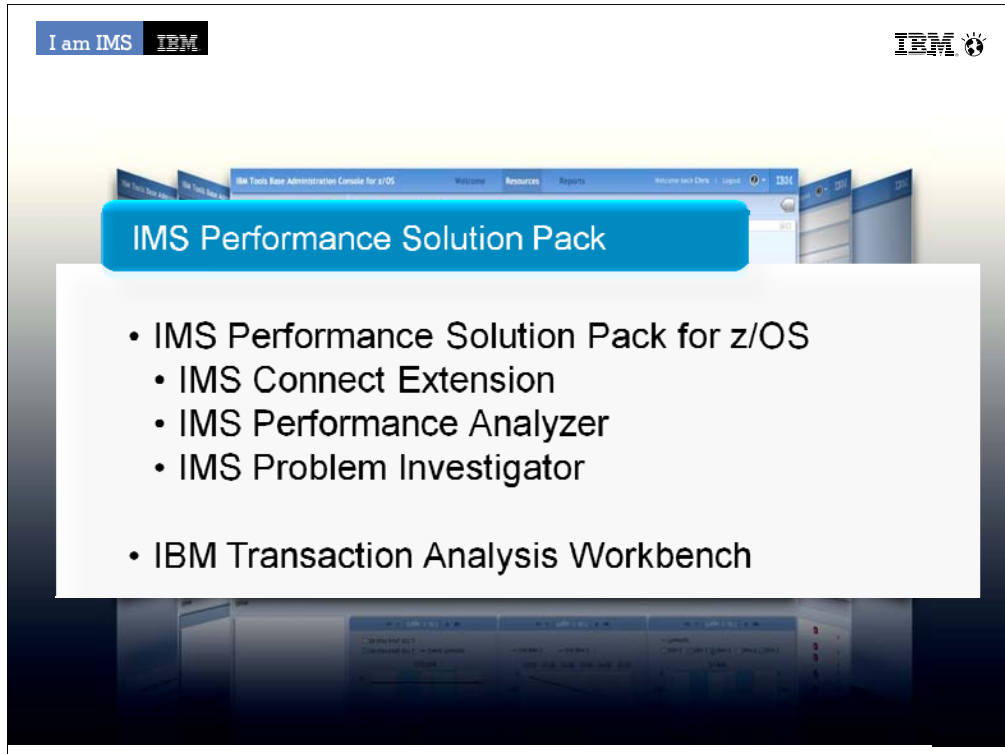
Transform disaster recovery into a disaster restart process, reducing recovery time objectives.

Prove compliance with internal or federal regulations.

IMS Recovery Tools Supporting IMS V13

Product Name	V.R.M	PID	V13 Support	APAR / PTF
IMS Recovery Solution Pack	1.1.0	5655-V86	1/2013	DRF: PM73744 / UK90564 DRF-XF: PM75720 / UK90586 HPCA: PM75717 / UK90565 DRF/XF IMSV13 support does not include the RCU and RECONCOPY features (future APAR)
IMS HP Image Copy *	4.2.0	5655-N45	1/2013	PM75253 / UK90552
IMS Index Builder *	3.1.0	5655-R01	1/2013	PM75258 / UK90494
IMS Recovery Expert	2.1.0	5655-S98	1/2013	PM73060 / UK93129



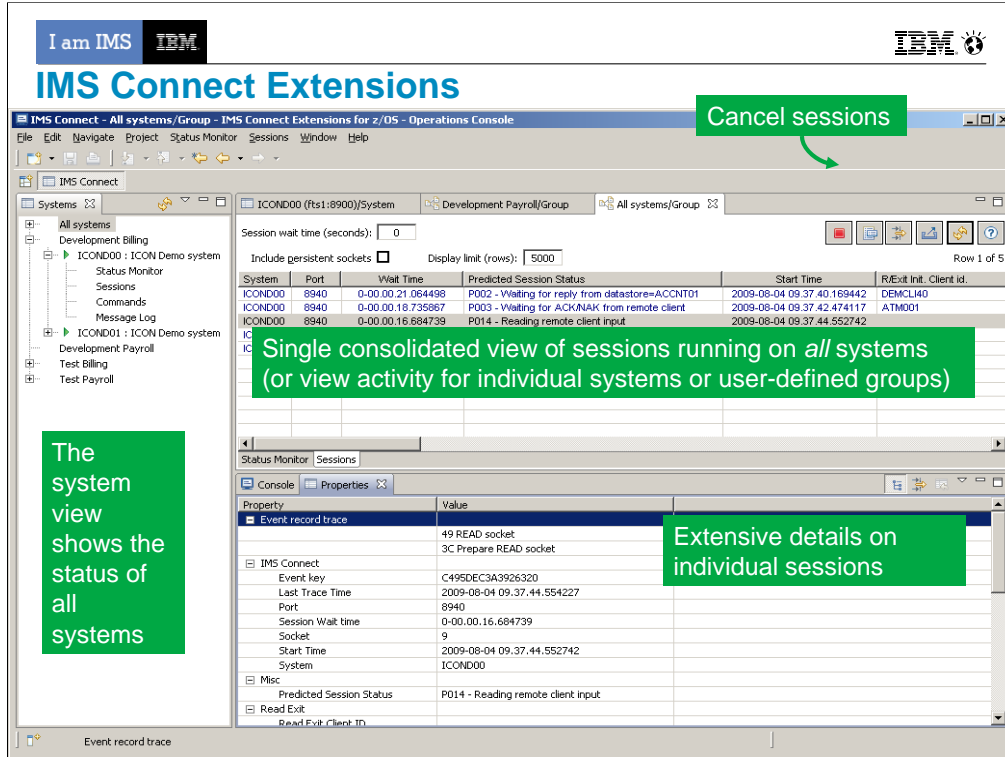


I often hear that since performance is good we don't need to do performance tuning. Not doing performance tuning means buying a larger mainframe or another box months or years too soon. Performance Tuning doesn't mean doing application changes. Many changes can produce dramatic effect without ever touching the application code.

•The IMS Performance Solution Pack for z/OS provides all the tools needed to manage IMS TM traffic. It includes the following products:

- IMS Connect Extensions is a key tool for managing access to IMS through IMS Connect
- IMS Performance Analyzer is the IMS Performance platform for ensuring you are meeting your service level agreements with your customers, capacity planning and analyzing response time and monitoring enterprise-wide indicators that can adversely affect IMS performance
- When there are problems in your system, time is of the essence. Outages and problems cost money. IMS PI provides an easy problem investigation tool that takes problem determination down from hours to minutes

•Transaction Analysis Workbench is a **collaborative Problem Analysis Tool** that allows you to analyze transaction performance and behavioral problems using logs and other historical data. Which extends the scope of traditional analysis techniques, enabling you to more easily identify problems caused by external events and helping pinpoint the cause of a problem.

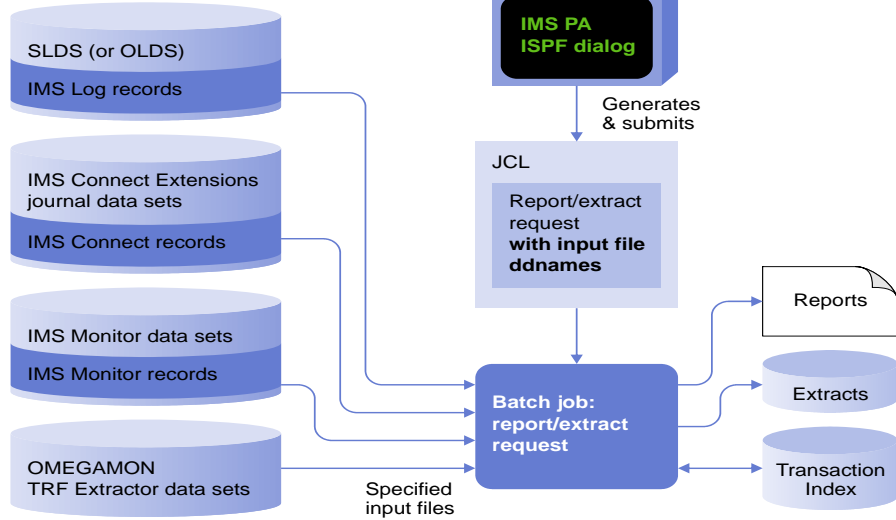


The following screen shows an example of the active session feature of the new GUI. The GUI here is showing all active sessions running on all systems defined to the GUI. For systems running a large number of sessions, you can filter active sessions. The most basic (and potentially most useful) filtering is to show only those sessions with long wait times, but you can also specify more advanced filtering based on almost any criteria. For example, show only sessions from a specific client ID, IP address, port, etc.

An operator can also export the data they see to a CSV file and send it for more extensive analysis by advanced support.

IMS Performance Analyzer

Disk or tape:

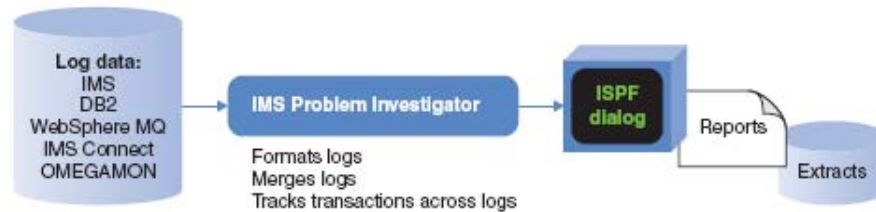


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Using PA you would run a batch job to extract data from IMS logs, IMS Connect journals, IMS monitor data and/or Omegamon for IMS transaction reporting facility to create reports to analyze the performance of you IMS systems.

IMS Problem Investigator

- Analysis of IMS event data can help identify problematic applications and identify system performance issues.
- IMS Problem Investigator complements IMS Performance Analyzer for enhanced log analysis and reporting.



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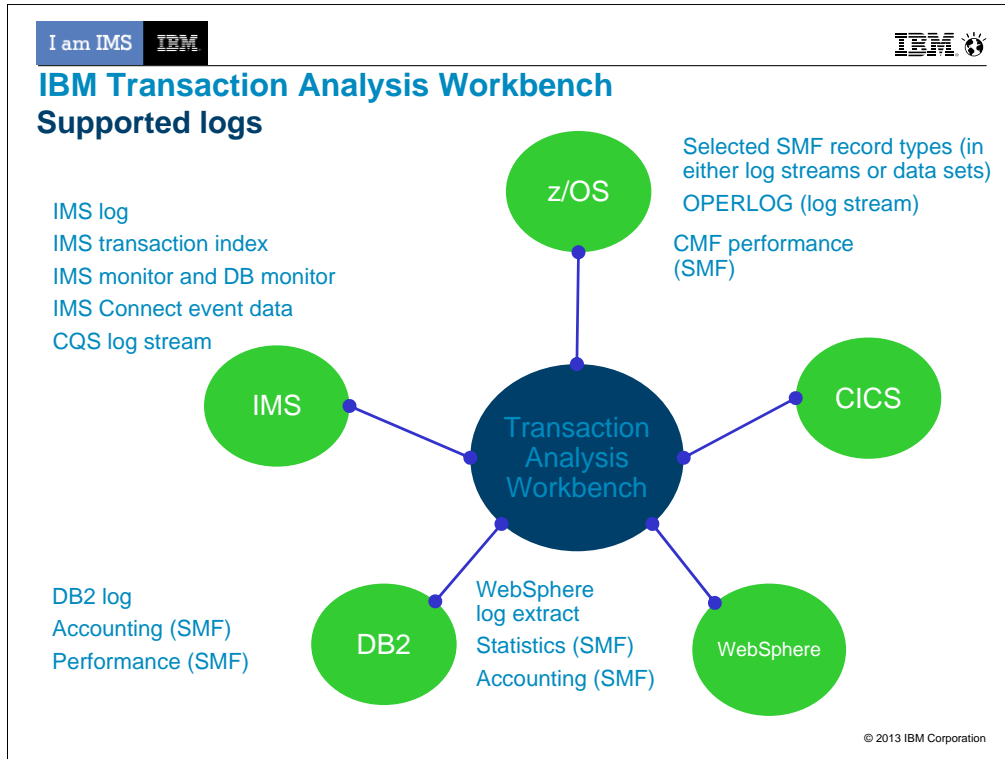
Most comprehensive Problem tool on the market IMS Problem Investigator provides an ISPF interface and batch reporting capabilities that enable the investigator to interactively navigate, investigate, and analyze:

- IMS log
- IMS / DB monitor records,
- IMS Common Queue Server (CQS) log records,
- IMS Connect event data,
- SMF records
- Omegamon TRF log and extract,
- DB2 log,
- Websphere MQ log extract.

Key Features include:

- Browse, analyze, and interpret logs
- Gain an end-to-end picture of transactions in the Sysplex.
- Understand IMS log record with detailed field description and global fields.

The TX line action will connect records associated with the same transaction across all logs.



IMS transaction index: To create an IMS transaction index, you need IMS PA. You can use Workbench to submit an IMS PA job that creates an IMS transaction index.

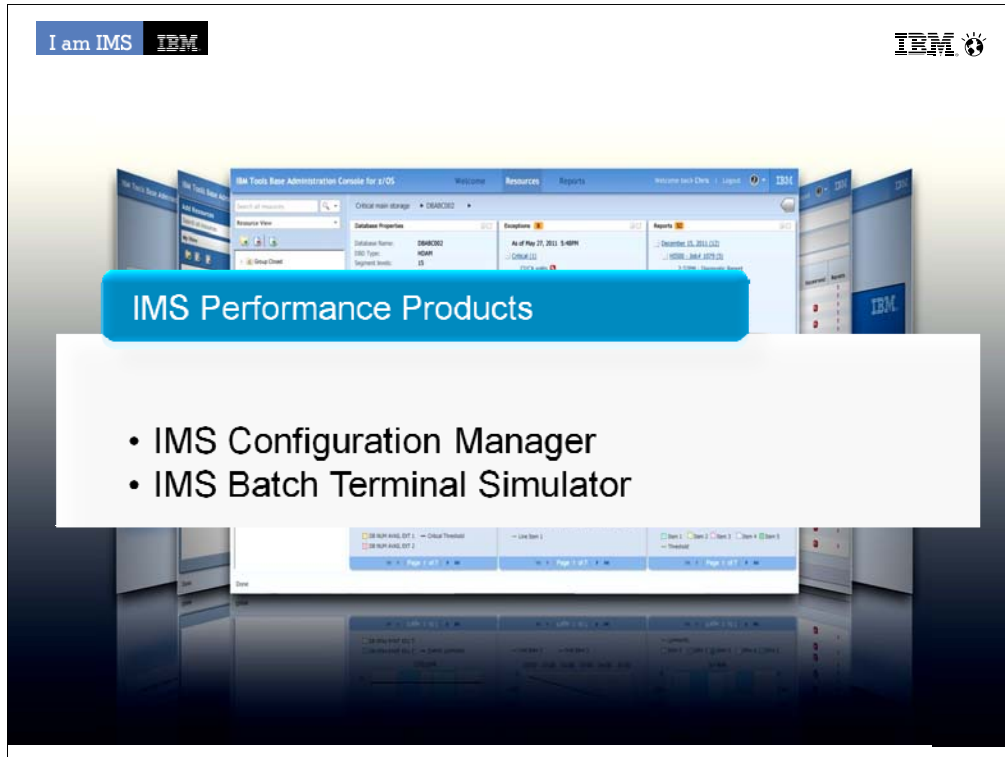
IMS Connect event data: To collect IMS Connect event data, you need IMS Connect Extensions (CEX).

SMF: For a list of SMF record types, subtypes, and classes specifically supported by Workbench, see the User's Guide (Reference > Log types and codes > SMF codes).

IMS Performance Tools Supporting IMS V13

Product Name	V.R.M	PID	V13 Support	APAR / PTF
IMS Performance Solution Pack	1.1.0	5655-S42	NA	New release required
	1.2.0	5655-S42	NA	PTFs required for standalone products
IMS Performance Analyzer *	4.2.0	5655-R03	NA	New release required
	4.3.0	5655-R03	1/2013	PM74169 / UK90796
IMS Problem Investigator *	2.2.0	5655-R02	NA	New release required
	2.3.0	5655-R02	1/2013	V10 components: PM74268 / UK90806 V11 components: PM74271 / UK90807 V12 components: PM74272 / UK90808 V13 components: PM74172 / UK90802
IBM Transaction Analysis Workbench	1.1.0	5697-P37	1/2013	PM75605 / UK91447
IMS Configuration Manager	1.3.0	5655-L69	NA	New version required
	2.1.0	5655-WR2	1/2013	PM75879 / UK95193
IMS Connect Extensions * (includes Functional Support Library (FSL) – common code for CEX)	2.2.0	5655-S56	NA	New release required
	2.3.0	5655-S56	7/2013	PM76242 / UK95969 (CEX) PM88073 / UK95968 (FSL)





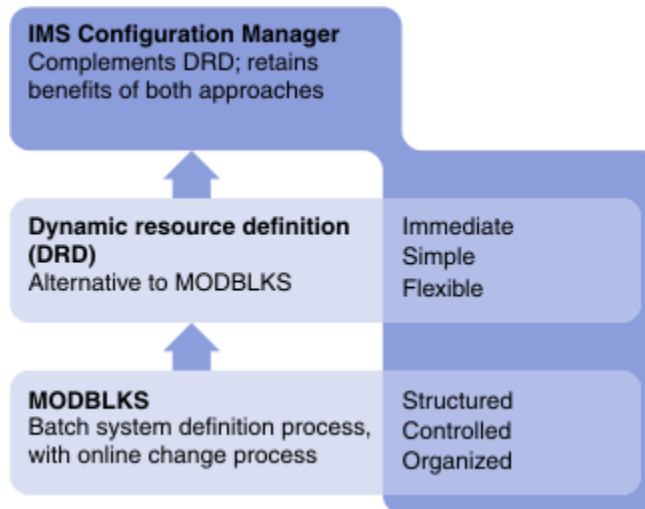
I often hear that since performance is good we don't need to do performance tuning. Not doing performance tuning means buying a larger mainframe or another box months or years too soon. Performance Tuning doesn't mean doing application changes. Many changes can produce dramatic effect without ever touching the application code.

•The IMS Performance Solution Pack for z/OS provides all the tools needed to manage IMS TM traffic. It includes the following products:

- IMS Connect Extensions is a key tool for managing access to IMS through IMS Connect
- IMS Performance Analyzer is the IMS Performance platform for ensuring you are meeting your service level agreements with your customers, capacity planning and analyzing response time and monitoring enterprise-wide indicators that can adversely affect IMS performance
- When there are problems in your system, time is of the essence. Outages and problems cost money. IMS PI provides an easy problem investigation tool that takes problem determination down from hours to minutes

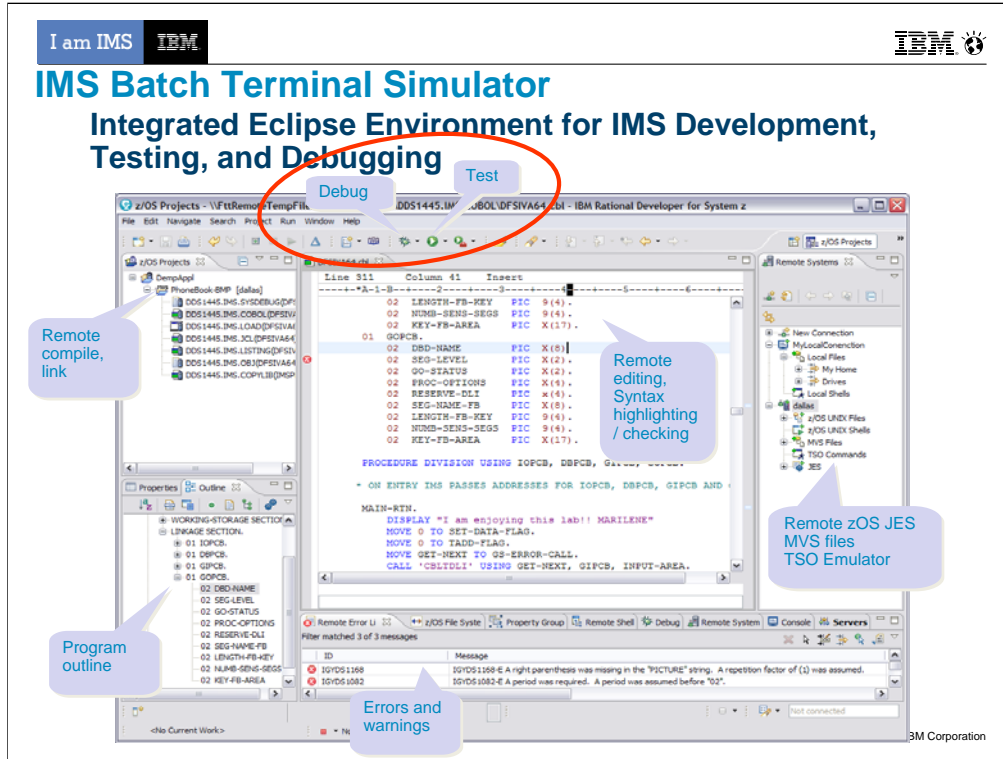
•Transaction Analysis Workbench is a collaborative Problem Analysis Tool that allows you to analyze transaction performance and behavioral problems using logs and other historical data. Which extends the scope of traditional analysis techniques, enabling you to more easily identify problems caused by external events and helping pinpoint the cause of a problem.

IMS Configuration Manager - Benefits



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The resource manager provides resource management for a dynamically-defined environment, simplifying the process of modifying, migrating, and installing IMS resources. The resource manager combines the benefits of a structured and well understood traditional SYSGEN environment, with the advantages of a dynamic resource definition process. It allows you retain the ability to structure and organize your resource definitions and maintain the definitions offline, while also gaining the benefits of DRD. That is, the ability to quickly introduce changes with minimal impact to running IMS systems.



The basic idea is BTS allows users to reduce cost by testing with BTS (which is much lighter weight than a full IMS – less MIPS – and doesn't require individual licenses).

It also has a playback utility which can capture both the MOD input messages into a BTSIN (to be used later as a regression test), and prints out screens for automated documentation of those regression tests.

BTS V4: What's new in base BTS

- Supports IMS callout (ICAL) under BMP and JBP regions

ICAL call enables an application program to send a synchronous request to a non-IMS program or a service that runs in a z/OS or distributed environment.

Request and response areas on ICAL call are traced.

- Supports for variable-length BTSIN data sets

A whole data in a record is handled as a command or a transaction data without any continuation non-blank characters though a non-blank character in column 72 indicates continuation in a fixed format. A developer/tester can simulate input coming from a mid tier application using this BTSIN without worrying about existing 80 byte length limit. The record length in a variable format can be from 5 to 32756.

- Provides new reporting features for improved analysis and prediction of performance behavior

IMS Tools Supporting IMS V13

Product Name	V.R.M	PID	V13 Support	APAR / PTF
IMS Command Control Facility	2.1.0	5655-R58	1/2013	PM76073 / UK91079
IMS Database Control Suite	3.2.0	5655-L08	1/2013	PM75489 / UK90875
IMS Batch Backout Manager	1.1.0	5697-H75	1/2013	PM75612 / UK90905
IMS Batch Terminal Simulator	3.1.0	5655-J57	NA	New version required
	4.1.0	5655-BT4	1/2013	PM70739 / UK90240
IMS Buffer Pool Analyzer	1.3.0	5697-H77	1/2013	PM75613 / UK90934
IMS Program Restart Facility	2.1.0	5655-E14	1/2013	PM75617 / UK90879

IMS BTS supports testing of IMS applications that exploit the JDR support for ESAF, the ICAL RECEIVE sub-function.



IMS Tools Supporting IMS V13

Product Name	V.R.M	PID	V13 Support	APAR / PTF
IMS Queue Control Facility	3.1.0	5697-N50	1/2013	PM75713 / UK90617
IMS Sequential Randomizer Generator	1.1.0	5655-E11	NA	IMS release independent - does not require a PTF.
IMS Sysplex Manager	1.3.0	5655-P01	1/2013	PM76076 / UK90640
IMS Workload Router	2.7.0	5697-B87	1/2013	PM72991 / UK90761
IMS Network Compression Facility	1.1.0	5655-E41	1/2013	PM75616 / UK90350
IMS ETO Support	3.1.0	5655-L61	1/2013	PM76074 / UK90989
IMS HP Sysgen Tools	2.2.0	5655-P43	1/2013	PM75614 / UK90992



SUPPORT FOR IMS 13 *OTHER PRODUCTS*

IMS Tools Supporting IMS V13

Product Name	V.R.M	PID	V13 Support	APAR / PTF
InfoSphere Guardium Data Encryption for DB2 and IMS Databases	1.2.0	5655-P03	NA	IMS release independent - does not require a PTF.
IBM DB/DC Data Dictionary	1.6.0	5740-XXF	NA	IMS release independent - does not require a PTF.
IMS ADF II	2.2.0	5665-348	1/2013	IMS release independent - does not require a PTF.
IMS Audit Management Expert	1.2.0	-	NA	Replaced by IBM InfoSphere Guardium S-TAP for IMS

IMS Tools Solution Packs



IMS Database Solution Pack

- ❖ Autonomics
- ❖ IBM Administration Console

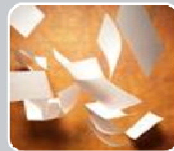
- ❖ IMS Online Reorg Facility
- ❖ DB Reorg Expert
 - ❖ Unload
 - ❖ Load
 - ❖ Prefix Resolution / Update
 - ❖ Index Builder
- ❖ HP Image Copy
- ❖ HP Pointer Checker
 - IMS DB Repair Facility
- ❖ IMS Library Integrity Utilities



IMS Fast Path Solution Pack

- ❖ Autonomics
- ❖ IMS Administration Console

- ❖ HP FP Utilities
 - FP Advanced Utilities
 - FP Online Utilities
- ❖ IMS DB Repair Facility
- ❖ IMS HP Image Copy
- ❖ IMS Library Integrity Utilities



IMS Recovery Solution Pack

- ❖ IMS Administration Console

- ❖ DB Recovery Facility
- ❖ HP Change Accumulation
- ❖ HP Image Copy
- ❖ DRF Extended Functions



IMS Performance Solution Pack

- ❖ IMS Administration Console

- ❖ IMS Connect Extensions
- ❖ IMS Performance Analyzer
- ❖ IMS Problem Investigator



[NEW.Q4]

This year we celebrate 45 years with IMS. DB2 is 35 years old. NASA is 55 years old.

We live in a very exciting and interesting time

Mobile:

World Population: 7 Billion, by 2020 it will reach 8 Billion

Cheap computing devices making them ubiquitous

By 2020, the number of mobile devices will reach 24 Billion

Growth in mobile devices, and explosion in digital social connections fuels growth in data...

Big Data:

Every two days, we create as much information as we did from the dawn of civilization to 2003.

Amidst the explosion of data, important data.. systems of record... still needs to be secure, needs to be available, needs to be accessible 24x7... and IMS is never better positioned to take on the challenge.