S49
Migrating From the Old to the New Releases of IMS DB Tools

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IMS Technical Conference

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Background

- The Support deadline is quickly running out for the older versions of the IMS DB Tools. This session discusses the upgrade path from each of the older DB Tools, and the migration work required to smoothly implement the new tools.

- Geoff Nicholls

  ► IMS Advocate, Worldwide IMS Support Team,

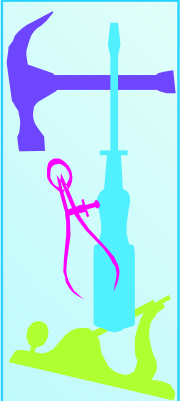 ► Silicon Valley Laboratory

  ► geoffn@au1.ibm.com

IMS Tools

Migration

IBM.

Agenda

Database Administration
- ►High Performance Unload
- ►High Performance Load
- ►Index Builder
- ►High Performance Prefix Resolution
- ►IMS Parallel Reorganization
- ►DB Repair Facility
- ►IMS Control Suite
- ►Library Management Utilities
- ►Advanced ACB Generator
- ►ETO Support
- ►Command Control Facility
- ►High Performance Sysgen Tools
- ►High Performance Pointer Checker
- ►Fast Path Basic Tools
  - –DEDB Unload/Reload
  - –DEDB Pointer Checker
  - –DEDB Tuning Aid
- ►Fast Path Online Tools
  - –DEDB Online Pointer Checker
  - –DEDB Online Data Extract
  - –DEDB Online Area Extender
- ►Sequential Randomizer Generator
- ►IMS Partition DB
- ►IMS Compression - Extended

Performance Management
- ►IMS Performance Analyzer
- ►Queue Control Facility
- ►Dynamic Resource Control Facility
- ►Workload Router

Recovery and Replication
- ►Online Recovery Service
- ►IMS Recovery Saver
- ►Database Integrity Control Facility
- ►IMS Image Copy Extensions
- ►DB2 Recovery Manager
- ►DEDB Fast Recovery
- ►Data Propagator

Application Management
- ►Batch Terminal Simulator
- ►MFS Reversal Utilities
- ►Application Restart
- ►IMS Connect
- ►Y2K Exit

IMS Tools

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Common Threads

■ Software Installation

► Each product (tool) installs into a separate zone, target and distribution libraries

 – True for IMS DB Tools 2.3, with one zone and set of libraries for all ordered features

 – Can be installed into a single zone and set of libraries by modifying the installation instructions

► Corollary:

 – By default, one load library per product (tool)

 – May be different to your current setup

  typically one load library for all DB Tools

 – You may choose to

  merge all the tools into a single run-time library

  migrate to a set of run-time load libraries

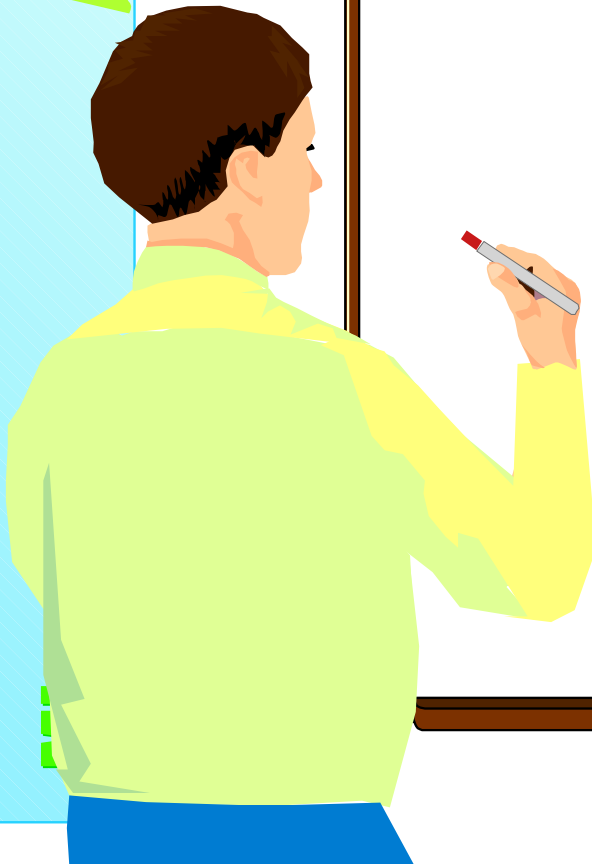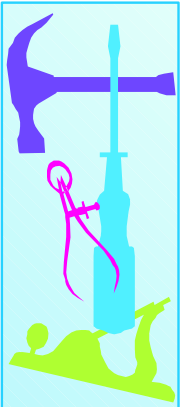► JCL Changes may be required if you install into different libraries

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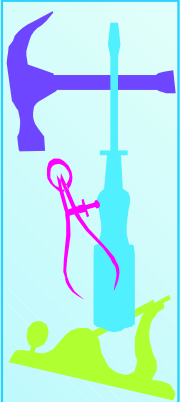
IMS Tools Migration

Database Administration

IMS High Performance Unload

- Current Release

  - ▶ Version 2   5655-E06 (Product)
                        5655-E26 (Subscription and Support)

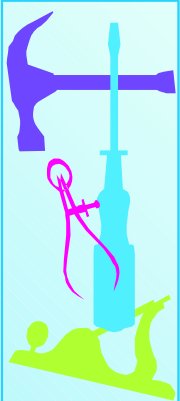   - Generally Available: 17 November 2000

- Previous Release

  - ▶ IMS DB Tools V2.3 High Speed Sequential Retrieval (HSSR) feature, 5655-083

    - Generally Available: 14 March 1997

    - End of Service: 31 March 2002

IMS High Performance Unload

- Migration

  - ► JCL changes due to separation of tools into different run-time libraries
  - ► Also means both versions of the tool can be used in parallel during migration
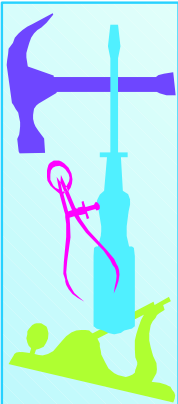
- New Function

  - ► IMS V7 Support
  - ► Dynamic allocation
  - ► API
  - ► includes migration to HALDB
  - ► includes fallback from HALDB
  - ► JCL Compatibility with DBT:HSSR
  - ► DBRC support
  - ► Out of the box - performance tuned

IMS High Performance Load

- Current Release

  - ►Version 1   5655-E07 (Product)
    5655-E27 (Subscription and Support)

    - Generally Available: 17 November 2000
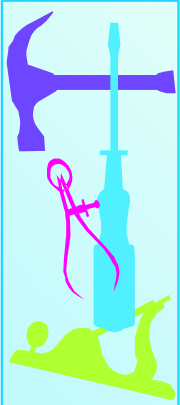
    - End of Service: 30 November 2003

- Previous Release

  - ►IMS DB Tools V2.3, 5685-083, Fast Reorganization Reload feature

    - Generally Available: 14 March 1997

    - End of Service: 31 March 2002

IMS High Performance Load

- Migration

  ► JCL changes due to separation of tools into different run-time libraries

  ► Also means both version of the tool can be used in parallel for migration

- V7 Support

- Dynamic allocation

- Pre-req for future Parallel Reorg product

- Support for HALDB

- DBRC support

- JCL compatibility with DBT:FRR

- Out of the box - performance tuned

- Initializes empty HDAM, HIDAM DBs

- Performs HALDB partition initialization as part of the Load

- User Exit Facility

- Physical Sequence Sort for Reload

- sorts an unloaded database data set from HDAM database, help preventing cascading, and produce reports about database sizes and randomizer performance.

IMS Index Builder

- Current Release
  - ► Version 2.1   5655-E24 (Product)
                        5655-E23 (Subscription and Support)
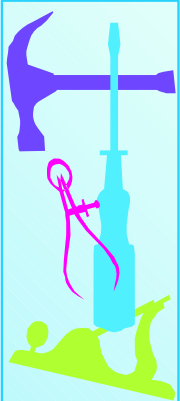   - Availability Date: 17 November 2000
    - End of Service: 30 November 2003
- Previous Release
  - ► Version 1, 5697-C33
    - Generally Available: 12 September 1997
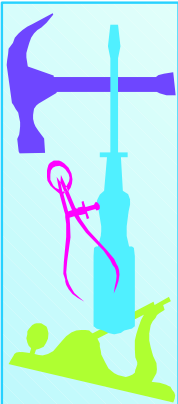   - End of Service: 31 March 2002

IMS Index Builder

- Migration

  - ► IMS Index Builder Version 2 provides full support for IMS Version 7 High Availability Database (HALDB) and provides DBRC support.

  - ► Minimizes the elapsed time needed to build one or more index databases.

  - ► Uses both parallel sort and parallel load whenever more than one index is being built.

    - – This powerful feature significantly reduces the time needed to build multiple indexes of a single physical database.

  - ► Is simple and easy to use.

  - ► Requires only one JOB step.

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IMS High Performance Prefix Resolution

- **Current Release**

  - ► Version 1   5655-E08 (Product)
                    5655-E28 (Subscription and Support)

    - – Generally Available: 17 November 2000
    - – End of Support: 30 November 2003

- **Previous Release**

  - ► IMS DB Tools V2.3, 5685-083, Fast Prefix Resolution feature

    - – Generally Available: 14 March 1997
    - – End of Support: 31 March 2001

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IMS High Performance Prefix Resolution

- Migration

  - ► None, compatible with DB Tools Fast Prefix Resolution

Parallel Reorganization

- Current Release
  - Version 1   5697-D13
    - Generally Available: 17 November 2000
    - End of Service   30 September 2002
- Previous Release
  - None
- Next Release...
  - Statement of Direction

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IMS Data Base Repair Facility

- Current Release

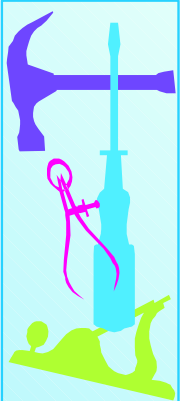 - ▶ Version 2   5655-E03 (Product)
                  5655-E93 (Subscription and Support)

    - General Availability: 17 November 2000

    - End of Service: 30 November 2003

- Previous Release

  - ▶ IMS DB Tools, VSAM Zapper feature, 5685-093

    - End of Service: 31 March 2002

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IMS Data Base Repair Facility

- Migration

  - The JCL and the input control statements for the DBT Version 1 VSAM Zapper utility (Program Product: 5668-856) can be used in the DBT Version 2 VSAM Zapper utility.

- Version 2.3 added the following

  - Support of the extended format VSAM KSDS data sets and the extended addressable VSAM KSDS data sets
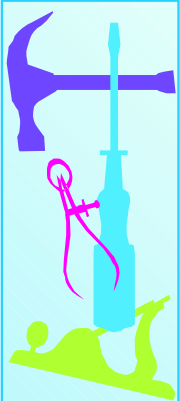
  - Other minor technical changes.

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Database Control Suite

- Current Release
  - ▶ Version 2.1   5655-F76 (Product)
                 5655-F75 (Subscription and Support)
    - Generally Available: 29 June 2001
    - End of Service: 31 March 2004
- Previous Release
  - ▶ Version 1, 5697-D15
    - Generally Available: 18 September 1998
    - End of Service: 30 September 2002

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Database Control Suite

- Add support for HALDB

- IMS Database Control Suite has been remodeled to:

  - ► Simplify the user interface

  - ► Improve operations by reducing and consolidating the:

    - Number of datasets

    - ISPF Panels

    - Process steps

  - ► Exclusively support IMS Base Utilities and IBM High Performance Tools

  - ► Provide more flexibility for local standards

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Database Control Suite

- Easier to set up than Version 1

- Supports IMS Base Utilities

- Supports the New IMS Tools

- Does not Pre-req REXX runtime product

- ISPF driven

- Intuitive , easy to manage task oriented design saves time and increases DBA productivity
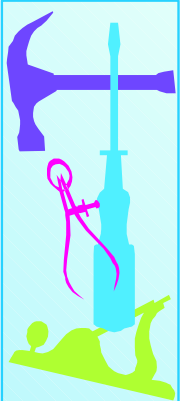
IMS Library Management Utilities

- Current Release
  - ►Version 1   5655-E04 (Product),
    5655-E94 (Subscription and Support)
    - Availability Date: 17 November 2000
    - End of Service: 30 November 2003
- Previous Release
  - ►IMS DB Tools V2.3, 5685-083, Library Management Utilities feature
    - Generally Available: 14 March 1997
    - End of Service: 31 March 2002

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IMS Library Management Utilities

- DBD/PSB/ACB Mapper

- DBD/PSB/ACB Compare

- DBD/PSB/ACB Reversal

- Migration

  ► JCL changes due to separation of tools into different run-time libraries

    – Also means both version of the tool can be used in parallel for migration

  ► No utility JCL or Control card changes required

  ► Some report headings have changed

- Support for HALDB
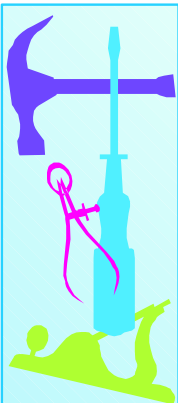
IMS Advanced ACB Generator

- **Current Release**
  - ► Version 1   5655-E05 (Product)
                     5655-E95 (Subscription and Support)
    - – Availability Date: 22 September 2000
    - – End of Service: 30 November 2003
- **Previous Release**
  - ► IMS DB Tools V2.3, 5685-083, Fast ACB Generator feature
    - – Availability Date: 14 March 1997
    - – End of Service: 31 March 2002

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Migration

IMS Advanced ACB Generator

- Migration

  - ▶ Support for IMS Version 7, including High Performance Availability Large Database (HALDB)

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IMS ETO Support
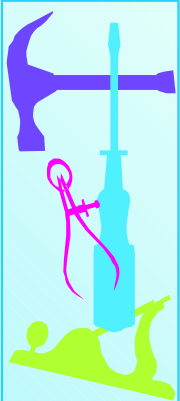
- Current Release

  - ▶ Version 2   5655-E12 (Product)
                       5655-E13 (Subscription and Support)

    - Generally Available: 22 September 2000

    - End of Service: 30 November 2003

- Previous Release

  - ▶ Version 1.2, 5697-D68

    - Generally Available: 16 June 2000

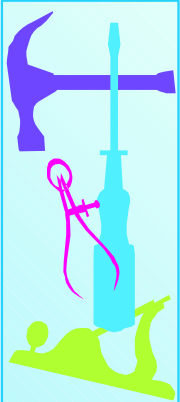   - End of Support: 31 March 2002

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IMS ETO Support

- ETO Support helps you implement IMS ETO by providing a front-end to help with implementation, customization, and control.

- With ETO Support, you can tailor all facets of ETO. ETO Support lets you set global options for the entire user community and override options for specific terminals or userids.

- Migration

  ► ETO Support database is upwards compatible

    - may not be backwards compatible if multiple LTERM support used

    - The best way to accomplish sharing between versions is to perform all database updates using Version 1.1 until Version 2.1 is installed in all regions sharing the database.
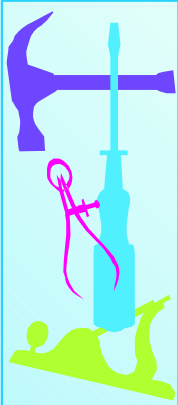
IMS Command Control Facility

■ Current Release

▶ Version 1   5655-F40 (Product)
                 5655-F41 (Subscription and Support)

   – Generally Available: 19 January 2001

   – End of Service: 31 March 2004

■ Previous Release

▶ None

IMS Command Control Facility

- Issue commands for DB/CTL, DC/CTL or DB/DC regions

- Execute IMS commands from a batch utility or from a TSO session via an ISPF interface

- Ensure successful processing of database START, STOP, DBR, and DBD commands

- Process IMS commands across all regions in a sysplex using the batch command processor

- Synchronize Online Change and database commands across all regions in a sysplex using the batch command processor

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IMS High Performance Sysgen Tools

- Current Release

  - ► Version 1   5655-F43 (Product)
                      5655-F42 (Subscription and Support)

    - Generally Available: 19 January 2001

    - End of Service: 31 March 2004
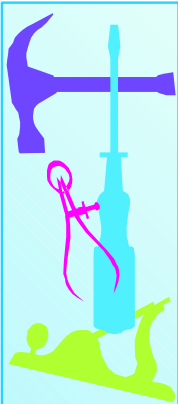
- Previous Release

  - ► None

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IMS High Performance Sysgen Tools

- Perform IMS sysgens for application resource changes (transactions, programs, databases, and route codes) in a single job step - or online

- Reduce IMS sysgen CPU time dramatically

- Maintain/Create IMS-plex sysgen configurations

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IMS High Performance Pointer Checker
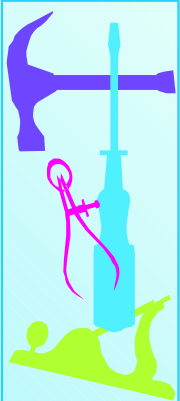
- Current Release
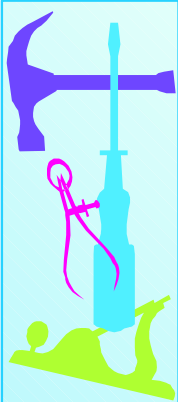
  - ▶ Version 1   5655-E09 (Product)
               5655-E29 (Subscription and Support)

    - Generally Available: 17 November 2000
    - End of Service: 30 November 2003

- Previous Release

  - ▶ IMS DB Tools V2.3, 5685-083, Space Management Utilities feature

    - Generally Available: 14 March 1997
    - End of Service: 31 March 2002

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IMS High Performance Pointer Checker

- Migration

  - ► Compatible with the input control statements of the DBT Version 2 HD Pointer Checker

  - ► The formats of some reports are different from those of the DBT Version 2.

IMS Fast Path Basic Tools

- **Current Release**
  - ► Version 1   5655-E30 (Product)
                         5655-E36 (Subscription and Support)
    - – Generally Available: 17 November 2000
    - – End of Service: 30 November 2003

- **Previous Release**
  - ► IMS DB Tools V2.3, 5685-083
    - – DEDB Load/Unload feature
    - – DEDB Pointer Checker feature
    - – DEDB Tuning Aid feature

    - – Generally Available: 14 March 1997
    - – End of Service: 31 March 2002

IMS Tools

Migration

IMS Fast Path Basic Tools

- DEDB Load/Unload feature

  - ► New optional format of unload dataset can reduce the volume of the unload dataset

- DEDB Pointer Checker feature

- DEDB Tuning Aid feature

  - ► An extension of the DEDB Pointer Checker.

  - ► Evaluates potential DEDB design modifications without unloading and reloading the database

  - ► DEDB Tuning Aid uses data previously extracted by the Data Base Tools DEDB Pointer Checker.

IMS Fast Path Online Tools

- Current Release
  - ► Version 2   5655-F78 (Product)
                         5655-E25 (Subscription and Support)
    - Generally Available: 27 July 2001
    - End of Service: 30 November 2003
- Previous Release
  - ► Version 1.1, 5655-E31
    - Generally Available: 17 November 2000
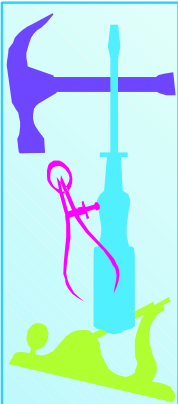   - End of Service: 30 November 2003
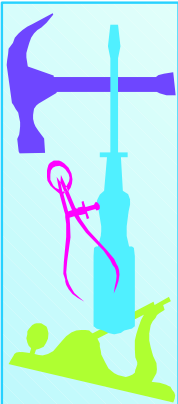
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IMS Fast Path Online Tools

▶ DEDB Online Pointer Checker

- A Summary Report of pointer errors found

- An option to produce a snap listing of CIs found to be in error

- An option to take an Image Copy during execution (similar to the IMS Concurrent Image)

- DBRC notification of the image copy

- Dual Image Copy output datasets

▶ DEDB Online Data Extract

- Easy to use tool to extract data from a DEDB are that is online

- Provide selectable extract capability

- Select segment offset with value

- Control statement driven

- Operates as an online utility

- Uses locking protocols to ensure a consistent view to the area

- Compression support

▶ DEDB Online Area Extender

- expand the size of the DEDB area without taking it offline.

IMS Sequential Randomizer Generator

- Current Release

  - ► Version 1.1   5655-E11 (Product),
    5655-E21 (Subscription and Support)

    - Generally Available: 17 November 2000

- Previous Release

  - ► IMS DB Tools 2.3, 5665-083, Sequential DAM Optimizer feature

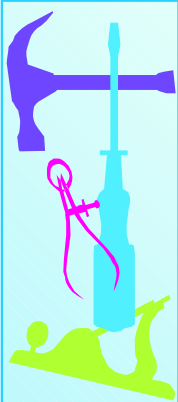   - Generally Available: 12 October 2000

    - End of Service: 31 March 2002

IMS Sequential Randomizer Generator

- Support for the generation of the sequential randomizer for a PHDAM partition

- Support for the generation of the reusable or reentrant sequential randomizer for HDAM and PHDAM

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IMS Sequential Randomizer Generator

- Allows you to create a randomizer for sequential processing, as well as one for non-sequential processing.

- It works on both HDAM and DEDB databases.

- analyzes:

  - ►database keys

  - ►database record lengths

  - ►control statements

- Optimizes the distribution of DBRs by analyzing the root synonyms.

- Provides statistics.

IMS Tools

Migration
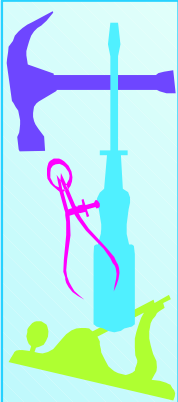
IMS Partition Data Base

- Current Release
  - Version 2.2, 5697-D85
    - Generally Available: 20 October 2000
    - End of Service: 30 November 2003
- Previous Releases
  - Version 2.1, 5697-D85
    - Generally Available: 13 November 1998
  - IMS Partition Support Version 1.1, 5697-A06
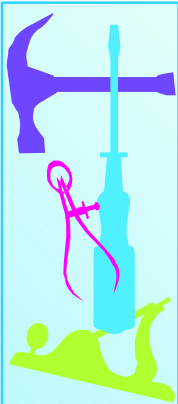   - Generally Available: 8 November, 1996

IMS Partition Data Base

- Provides support for
  - ► Extra utilities
  - ► IMS Version 7
  - ► Usability Enhancements, such as dynamic allocation

IMS Compression - Extended

- Current Release

  ▶ Version 2   5655-E02 (Product)
  5655-E01 (Subscription and Support)

    – Generally Available: 22 Sept 2000

- Previous Release

  ▶ Version 1.2, 5655-085
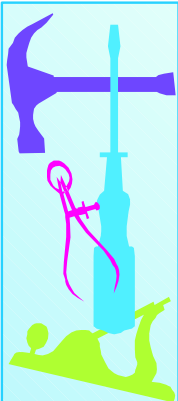
    – Generally Available: 15 October 1995
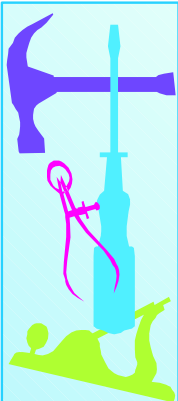
    – End of Service: 31 March 2002

IMS Tools

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# IMS Compression - Extended

■ Migration

  ► None required.

IMS Compression Extended

- A function was added called Detail Analyze.

  - ▶Detail Analyze extracts segment data and reports compression savings for customized segment and generic dictionaries. This is done in a single JCL step. The report that is produced provides statistical information for each segment you specify.

- A report was added that shows distribution of segments by compressed data length.

  - ▶The report applies to customized segment and generic dictionaries.

- New parameters let you skip beginning bytes when input data is read by the Analyze, Build, and Examine functions.

  - ▶You can also skip beginning bytes in the new Detail Analyze function.

- New ISPF panel-driven menus were created.

- A new ISPF panel-driven tutorial was written.

- The IVP executes with the IBM-supplied generic dictionary as an additional check on product installation.

- Standardized report formats were created for all previously-existing program functions.

- Standard ISPF job card creation procedures were added to the job submission process.

IMS Tools Migration

Performance

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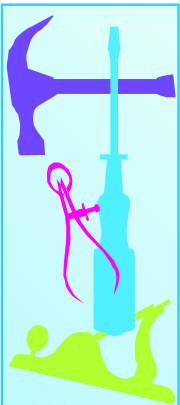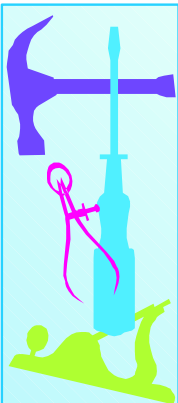
IMS Performance Analyzer

- Current Release

  - ► Version 3   5655-E15 (Product)
                         5655-E18 (Subscription and Support)

    - Generally Available: 22 September 2000

- Previous Release

  - ► Version 2, 5697-F02

    - Generally Available: 26 May 2000

    - End of Service: 31 March 2002

  - ► Version 1, 5697-B89

    - Generally Available: 21 November 1997

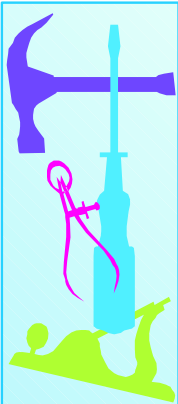   - End of Service: 30 November 2001

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IMS Performance Analyzer

- Migration
  - ► Re-installation only
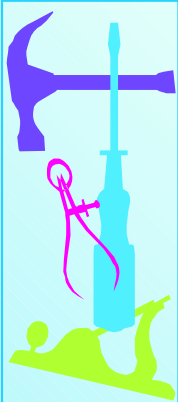
IMS Queue Control Facility

- Current Release

  - ► Version 1   5697-E99 (Product)
    5655-E99 (Subscription and Support)

    - Generally Available: 17 November 2000

    - End of Service: 30 November 2003

- Previous Release

  - ► IMS Message Requeuer, Version 3, 5655-136

    - Generally Available: 12 December 1997

    - End of Service: 31 March 2002

IMS Queue Control Facility

- Extends Support to IMS Shared Queues Providing
  - ► Query, Browse, Load, Unload, Recover
- Provides extended functions:
  - ► Pacing rate messages are inserted
  - ► Control number of messages inserted
  - ► Improved reporting of processing
  - ► Enhanced selection controls
  - ► User exits
- QCF offers an ISPF front end
  - ► uses interactive panels to enter the control card information
  - ► Provides a browse facility for the output in place of the report.

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Dynamic Resource Control Facility

- Current Release
  - Version 1.2, 5697-D14
    - Generally Available: 2 March 2001
- Previous Release
  - Version 1.1, 5697-D14
    - Generally Available: 6 August 1999

Dynamic Resource Control Facility

- Migration
  - ▶ Re-installation only

IMS Tools

Migration

IBM

Workload Router

- Current Release
  - ▶ Version 2.2, 5697-B87
    - − Generally Available:　02 March 2001
- Previous Release
  - ▶ Version 1.2, 5697-074
    - − End of Service:　31 January 2001

Workload Router

- Migration

  ► Exploitation of IMS V7 TM and MSC Message Routing and Control User Exit

    – IMS Workload Router (WLR) has been updated to support both the existing MSC exits (DFSCMPR0, DFSNPRT0, and DFSCMTR0) and the new IMS V7 TM and MSC Message Routing and Control User Exit (DFSMSCE0).

    – WLR has been updated to use the MSC Message Routing and Control User Exit (DFSMSCE1) instead of the Partner Product Exit Routine (DFSPPUE0) for initialization processing for router systems. DFSMSCE1 will determine if the user wants to use the existing user exit entry points, such as DFSCMPR0 and DFSNPRT0, or use the new entry points provided in IMS V7. Consistent with IMS V7 processing, WLR will use the new entry points only if the user has specified a user version of the new entry point. See IMS documentation for specific details on which exit point will be given control.

  ► Compatibility

    – The WLR changes for compatibility with IMS V7 are mainly changes to the WLR code to support the new DFSMSCD macro which contains fields that have been moved from the SCD macro.
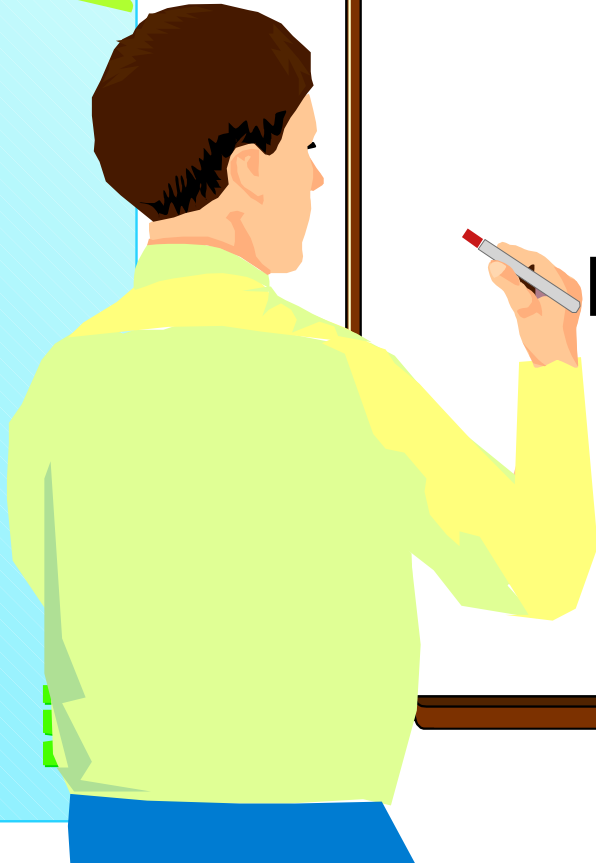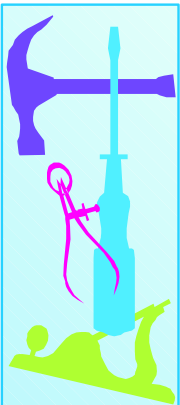
IMS Tools Migration

Recovery and Replication

IMS Online Recovery Service

- Current Release
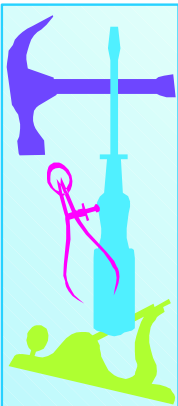 - ► Version 1   5655-E50 (Product)
    5655-E33 (Subscription and Support)
    - Generally Available: 22 September 2000
- Previous Release
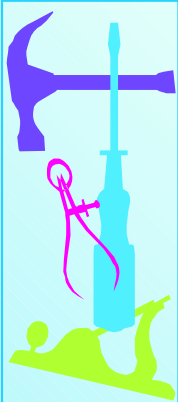 - ► None

IMS Tools

Migration

IMS Online Recovery Service

- Recover multiple DL/1 DBDS and Fast Path areas in a single pass of the IMS logs (CA not required)

- Timestamp recovery to allocation boundaries or any prior point in time

- Timestamp can be to any prior point in time

- User determines the timestamp to be used

- Timestamp not restricted by allocation ranges

- All updates that are committed as of the specified timestamp are applied

- A new Recovery facility executing in conjunction with the IMS control region

- Executes in parallel with online IMS activity

- Recovery is initiated via IMS commands

- Migration

  ► From your current recovery strategy to a new strategy, using the new facilities provided by ORS

IMS Recovery Saver

- **Current Release**
  - ▶ Version 2   5655-E16 (Product)
                       5655-E19 (Subscription and Support)
    - – Generally Available: 22 September 2000
    - – End of Service: 30 November 2003
- **Previous Release**
  - ▶ Version 1.1, 5655-A68
    - – Generally Available: 27 March 1998
    - – End of Service: 31 March 2002

IMS Tools

Migration

IMS Recovery Saver

- Migration

  - None required

- Improves IMS data availability

  - eliminates the need to establish IMS recovery points for disaster recovery or potential time stamp recovery purposes

IBM.

IMS Tools

Migration

Database Integrity Control Facility

- Current Release

  - Version 7   5697-F61

    - Generally Available   17 November 2000
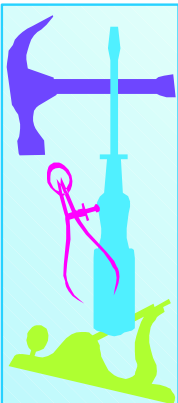   - End of Service: 30 November 2003

  - Version 6   5697-B92

    - Generally Available: 12 December 1997
    - End of Service: 30 September 2002

- DBICF has been replaced by IMS Database Control Suite Version 2
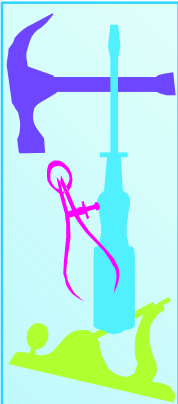
IMS Image Copy Extensions

- Current Release

  - ▶ Version 1   5655-E10 (Product)
    5655-E20 (Subscription and Support)

    - Generally Available: 29 June 2001

    - End of Service: 30 November 2003

- Previous Release

  - ▶ IMS DB Tools V2.3, 5685-093, Image Copy Extensions feature

IMS Tools

Migration

IMS Image Copy Extensions

- Compressed output copies

- Hash Checking option available(Image Copy only)
  - ▶ IBM IMS High Performance Pointer Checker for OS/390
    - – HD Pointer Checker Utility
  - ▶ IBM IMS Fast Path Basic Tools for OS/390
    - – DEDB Pointer Checker Utility

- Database Group processing support (Image Copy only)
  - ▶ CA group
  - ▶ DBDS group

- Dynamic allocation
  - ▶ database data set groups
  - ▶ log data sets
  - ▶ change accum data sets

- Stacking output copies

IMS Image Copy Extensions

- Enhanced version of standard IMS Image Copy Utility

- For both Full Function DB and DEDB

- Enables hash pointer checking during image copy

- Supports compressed image copy output

- Allows stacking of multiple output datasets

- Allows copying of DBRC DBDS and CAGRP Groups

- Can use Dynamic Allocation for input and output datasets

IMS Tools

Migration

IMS Technical Conference

DB2 Recovery Manager
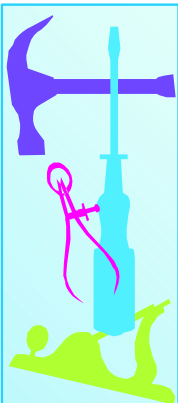
- Current Release
  - ► Version 1   5697-F56 (Product),
                5655-E96 (Subscription and Support)
    - – Generally Available: 1 December 2000
- Previous Release
  - ► None

- Simplifies and coordinates the recovery of both DB2 and IMS data to a common point

IMS Tools

Migration

IBM.

DB2 Recovery Manager

- Coordinate Recovery of DB2, IMS, or Both

- Manage Different Logs, Utilities, & Processes to do recovery from both DB2 & IMS

- Recovery Management

- Virtual Image Copies

- creation of integrated IMS/DB2 checkpoints

- Map of the recovery

- Recovery

- Automated Operator

- Automate Recovery of Resources
  - ► JCL Generation & Locates Image Copies and Logs
  - ► Full or Incremental Image Copies

- Cut Time & Cost of Data Recovery

IMS Tools

Migration

IMS DEDB Fast Recovery

- Current Release

  - ► Version 2   5655-E32 (Product)
                      5655-E22 (Subscription and Support)
    - – Generally Available: 17 November 2000
    - – End of Service: 30 November 2003

- Previous Release

  - ► Version 1, 5655-109
    - – Generally Available: 20 March 1998
    - – End of Service: 31 March 2002

IMS DEDB Fast Recovery

- Changes
  - ► Added Support for IMS V7
  - ► Removed Support for IMS V4 and IMS V5

IMS Technical Conference

IMS DataPropagator

- Current Release

  - ► Version 2.2   5696-705
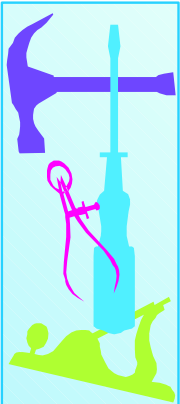
    - Generally Available: 28 February 1997

IMS Tools

Application Management

IMS Batch Terminal Simulator

- Current Release
  - Version 2, 5655-A14
    - Generally Available: 14 March 1997
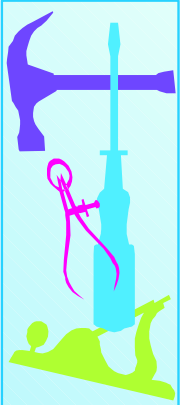- Previous Release
  - Version 1.2, 5668-948
    - End of Service: 31 March 2001

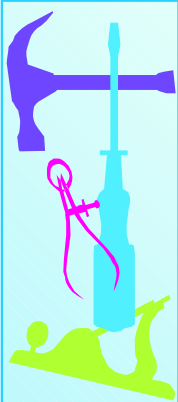# IMS Batch Terminal Simulator

- Migration
  - ▶ None required

- Multiversion IMS support from a single BTS loadlib
  - ▶ IMS V5, V6 and V7

- MQSeries call trace support

- LU6.2/APPC support

- AUTOMATIC INIT DBQUERY with conversational mode

- /EXIT support under LE/370

- TYPE=IFP support for INQY call

- ETO Status code support

IMS Tools

Migration

IMS MFS Reversal Utilities

- Current Release

  - Version 1.1   5655-F45 (Product)
                     5655-F44 (Subscription and Support)

    - Generally Available: 19 January 2001

    - End of Service: 31 March 2004

- Previous Releases

  - None

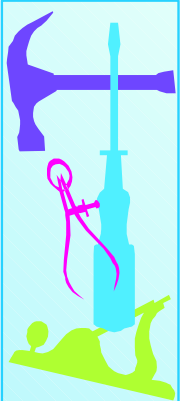# Application Restart

- Current Release

  ► Version 2　　5655-E14 (Product)
  　　　　　　　5655-E17 (Subscription and Support)

    - Generally Available:　22 September 2000

    - End of Service:　　　30 November 2003

- Previous Release

  ► IMS Program Restart Facility V1.1, 5697-F18

    - Generally Available:　10 March 2000

    - End of Service:　　　31 March 2002

Application Restart

- Helps you correctly restart abended IMS batch jobs that use the IMS Extended Restart facility.
  - Program Restart puts the checkpoint records required for restart in the IMS log; when a job that has abended is later being restarted, Program Restart automatically supplies the most recent restart checkpoint ID.

- No changes to your application code or JCL.

- Migration
  - ► None

IMS Connect

- Current Release
  - ▶ Version 1   5655-E51 (Product)
                         5655-E34 (Subscription and Support)
    - – Generally Available: 27 October 2000
    - – End of Service: 30 November 2003
- Previous Release
  - ▶ IMS TCP/IP OTMA Connector (ITOC) Version 2

IMS Tools

Migration

IBM.

IMS Connect

- Provides enhanced IMS TCP/IP support

- SMP Installable

- Persistent sockets and bottleneck relief for improved performance

- Migration

  - ► replace load library, change the exit names in the configuration file

    - EZAIMSO0, to HWSIMSO0

    - needed to specify more exits with Connect than with ITOC

IMS Connect

- All IMS TOC functions, plus ...

  ► SMP/E installation and maintenance

  ► Persistent socket support (for send-then-commit OTMA protocol)
    - Socket connection can be used by multiple transactions
    - Provides for greater efficiency

  ► Asynchronous/unsolicited output support
    - ISRTs to alternate TP PCBs
    - Resend of replies following NAK'd output
    - Remote application is required to ask for such output
    - Synchronous output will carry flag to indicate when there is asynchronous output queued

  ► Support for LINUX/390 clients

IMS Technical Conference

Y2K Exit

- Current Release
  - ► Release 2 5697-E04,
    - – Generally Available: 11 February 2000
    - – End of Service: 30 June, 2001
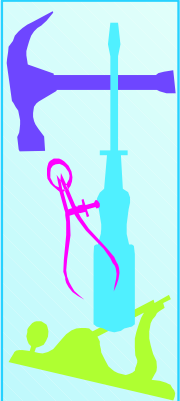- Previous Release
  - ► Release 1
    - – Generally Available: 12 October 2000

IMS Tools

Migration

Summary

Database Administration
- ►High Performance Unload
- ►High Performance Load
- ►Index Builder
- ►High Performance Prefix Resolution
- ►IMS Parallel Reorganization
- ►DB Repair Facility
- ►IMS Control Suite
- ►Library Management Utilities
- ►Advanced ACB Generator
- ►ETO Support
- ►Command Control Facility
- ►High Performance Sysgen Tools
- ►High Performance Pointer Checker
- ►Fast Path Basic Tools
  - –DEDB Unload/Reload
  - –DEDB Pointer Checker
  - –DEDB Tuning Aid
- ►Fast Path Online Tools
  - –DEDB Online Pointer Checker
  - –DEDB Online Data Extract
  - –DEDB Online Area Extender
- ►Sequential Randomizer Generator
- ►IMS Partition DB
- ►IMS Compression - Extended

Performance Management
- ►IMS Performance Analyzer
- ►Queue Control Facility
- ►Dynamic Resource Control Facility
- ►Workload Router

Recovery and Replication
- ►Online Recovery Service
- ►IMS Recovery Saver
- ►Database Integrity Control Facility
- ►IMS Image Copy Extensions
- ►DB2 Recovery Manager
- ►DEDB Fast Recovery
- ►Data Propagator

Application Management
- ►Batch Terminal Simulator
- ►MFS Reversal Utilities
- ►Application Restart
- ►IMS Connect
- ►Y2K Exit