

## IMS Configuration Manager: streamlining the transition to dynamic resource definition

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# Components

## Distributed access

Eclipse GUI

Connection Server

## Resource Manager

Repository (ICM)

Intelligent Installer

Utilities

- Take-up
- Gen
- Copy

## Parameter Management

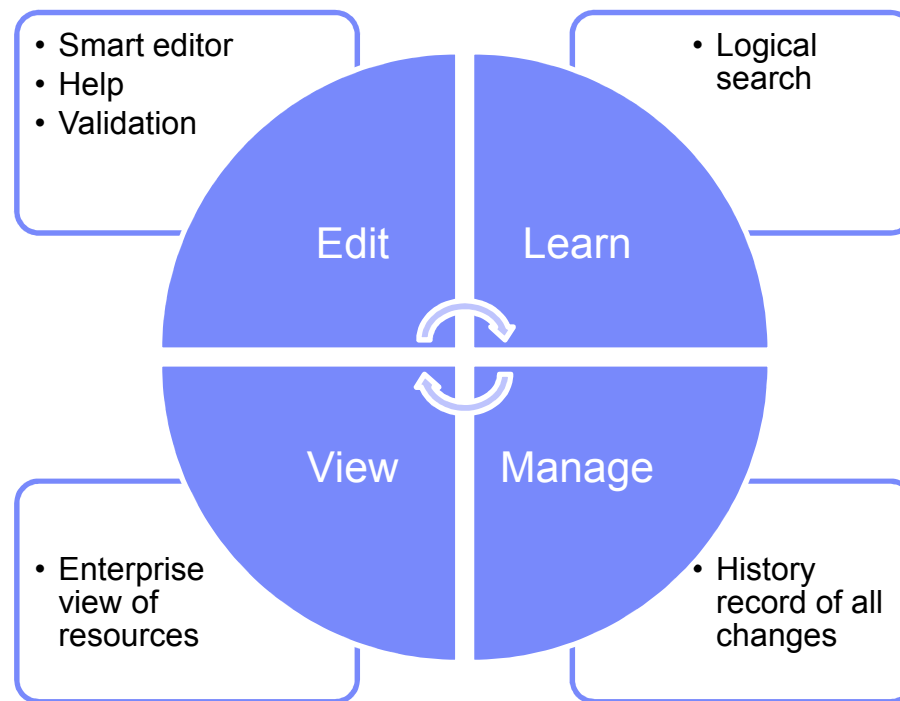
PROCLIB controls

History

Parameter editor

# Modernize parameter management

- How do you...
  - reduce the risk of changing settings that have not been altered in years?
  - identify differences across systems and LPARs?
  - learn about and apply new settings and parameters?
  - ensure a high-level of operational integrity with less experienced staff?
- IMS Configuration Manager helps you control, audit, and validate the parameter definition process



## Parameter management

- Enhanced parameter listing and search
  - Semantic search: finds parameters and members based on keywords; identifies missing parameters and members
  - Listing of PROCLIB members that are active on a given system
  - Edit history for all members
- Enhanced ISPF edit session that provides:
  - Checking of parameter syntax
  - Ability to insert parameters from a model
  - Context sensitive help for all parameters
  - Retains many ISPF edit functions
  - Does not alter or modify the member in anyway (unless you explicitly add or modify parameters)
  - Allows you to back up members before saving them
  - In the future may be extended to perform checking of entire PROCLIBs

# Parameter semantic search

```

File Help
-----
EDIT      DVP.IBDF.VB10.PROCLIB                      Row 11 of 32
Command ==>>> _____ Scroll ==>>> CSR

Search . . . DRD
-----

Member
/  *
-  DFSDFDVP      1  2009/02/11  2009/02/11 13:26:45  NMC2
  COMMON_SERVICE_L=...
  MODBLKS=...      How MODBLKS resources are changed
  DYNAMIC_RESOURCE=...
  AUTOEXPORT=...   Definitions exported at checkpoint time
  AUTOIMPORT=...   Definitions automatically imported in COLD
  DCLWA=...        Default log write ahead option for created
  IMPORTERR=...    Action on error during automatic import
  RDDSERR=...      Action on error when accessing RDDS
  RDDSDSN=...      List of DSNs for RDDS processing
-----
-  DFSDF000      1
  COMMON_SERVICE_L=...
  MODBLKS=DYN      /* DRD ENABLED;MODBLKS OLC
  DYNAMIC_RESOURCE=

```

**Finds members and parameters even if they do not exist  
Help for each parameter**

File Edit Edit\_Settings Help

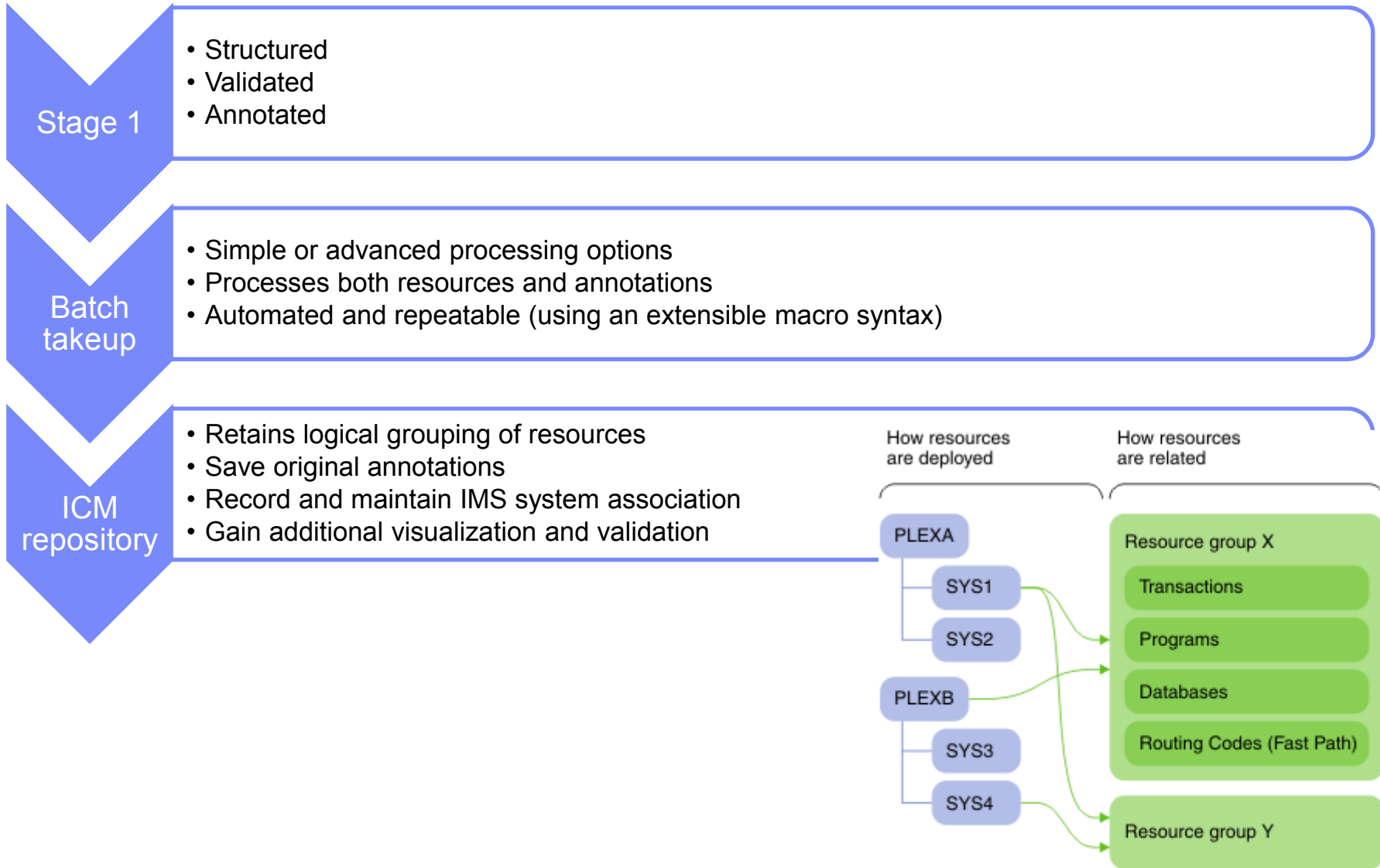
```

EDIT          REA.CLIST(DFSDFBLN) - 01.01          columns 00001 00072
Command ===> _____ Scroll ===> CSR
CHECK  validate the member syntax
MODEL  Insert a new parameter with syntax assistance
HELP   Press F1 to request parameter sensitive help
***** ***** Top of Data *****
000001 /*****
000002 /* Dynamic Resource Definition Section */
000003 /*****
000004 <SECTION=DYNAMIC_RESOURCES>
000005 RDDSDSN=IMSTESTL.IMS1.RDDS1,
=====+.....
==MSG> Unmatched parenthesis. RDDSDSN=IMSTESTL
000006         IMSTESTL.IMS1.RDDS2,
000007         IMSTESTL.IMS1.RDDS3,)
000008 AUTOIMPORT=AUTO
000009 AUTOEXPORT=AUTO
000010 IMPORTER=ABORT
=====+.....
==MSG> Unknown parameter: 'IMPORTER
000011 RDDSER=ABORT
000012 /*****

```

**New parameter smart editor**  
**Syntax validation**  
**Parameter value validation**  
**Context sensitive help**  
**Works with existing members**

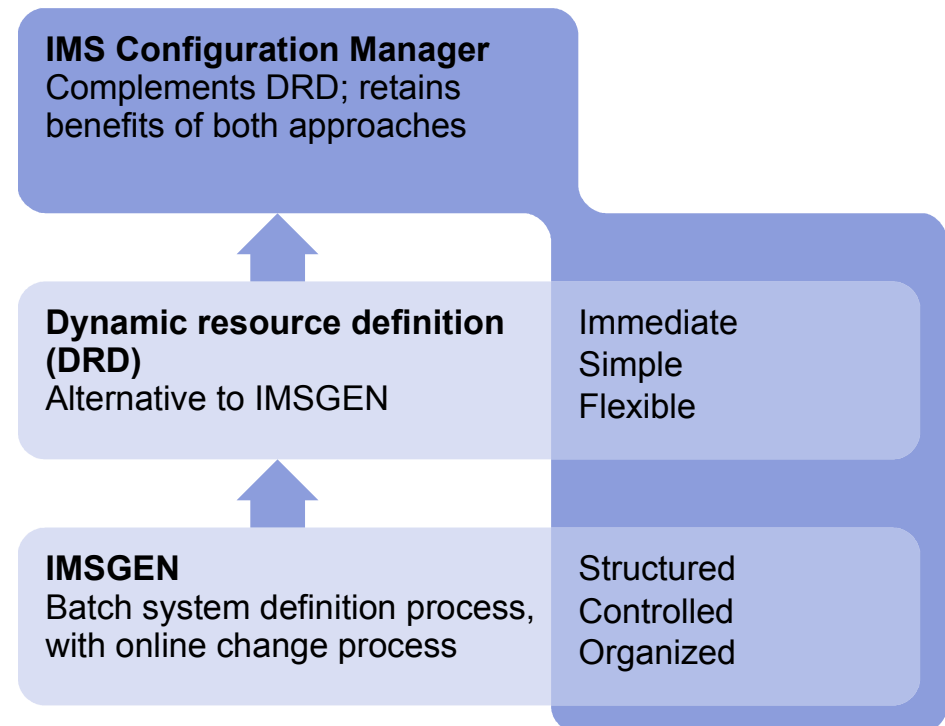
# Transition to ICM is simple



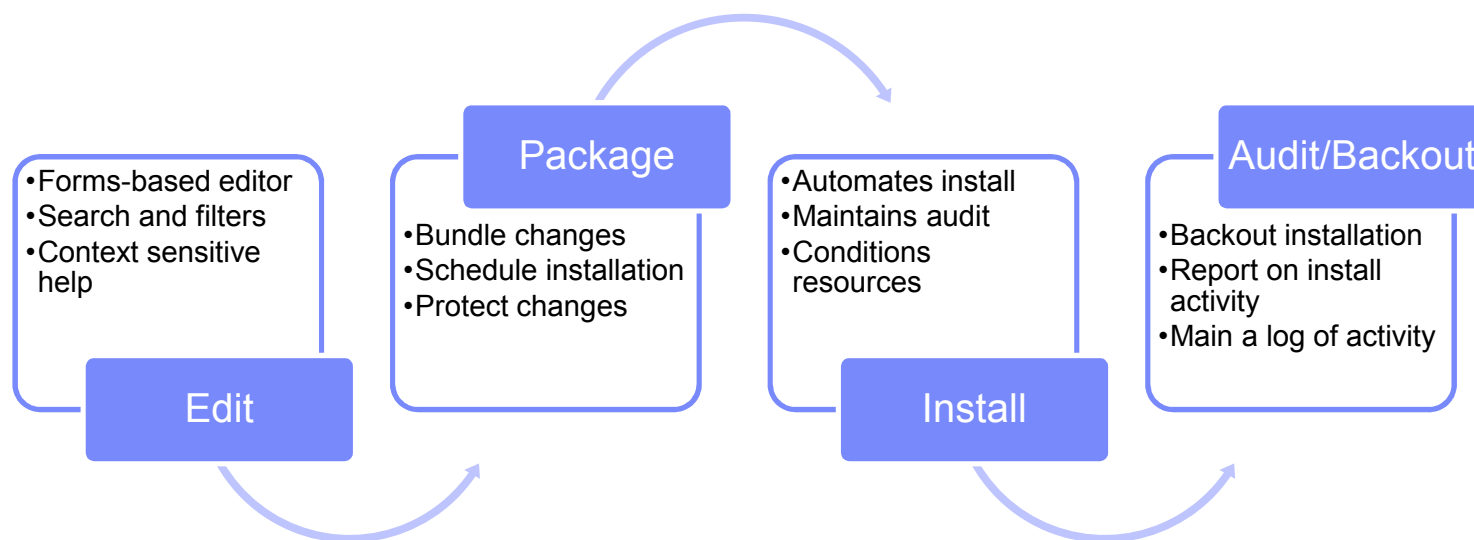


## Streamline resource management with DRD

- DRD offers the promise of a modern approach to application development and management
- Reduces the need for performing an IMSGEN
- More flexible and immediate than an online change
- But can you retain processes, control, and structure you have developed over years?
- IMS Configuration Manager adds structure to the DRD process.
  - Maintain your processes but gain the benefits of DRD
  - Add a layer of audit and control that allows you to open up the process to developers
  - Automation and reversibility of change process



## ICM Processes: updating resources using DRD



# Structure your process

The screenshots show the following steps:

- Change Packages - System View:** A table listing change packages with columns for Create Date/Time, Change Package Name, Status, Condition, and Type. Two packages are listed: EMER PLXREGEN and PLXREGEN.
- Create Change Package:** A dialog box where a new package named APP2.01 is being created with the description 'Updates to new app'.
- Select Change Package Resources:** A screen showing a list of resources for the selected package. The resources include various database, program, and utility components.
- Change Package type:** A summary screen showing the selected resources and the output type, which includes Stage 1 Macros and Cold Start RDOs.

When ready, bundle changes in a package

Pick individual resources

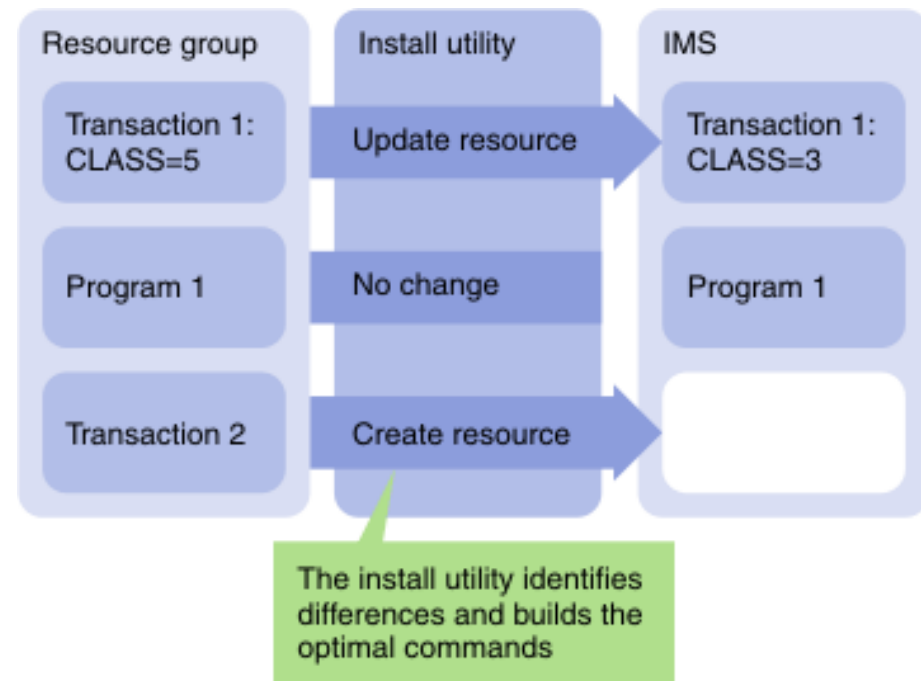
Bundle all resources for a given system

Continue working on the next update cycle

Install or gen the resources

## IMS Configuration Manager resource installer

- The installer provides enhanced services on top of the IMS type-2 command interface
- Automatically determines whether an install or update is required
- Rollback option
- Full-logging of install activity
- Builds and records system image



## The installer conditions resources for online installation

- Automated resource installation using documented best practices
- Identifies resources that are in use
- Can stop new activity to the resource and wait for a specified duration
- Then retries updating the resources (number of retries configurable)
- After resource is updated, reactivates the resources

## IMS Configuration Manager resource installer - BACKOUT

- Each change that is made is tracked in the repository
- A BACKOUT command can be used to reverse the changes
- Backout allows you to ensure changes you make are reversible

## IMS Configuration Manager GUI

- Control and manage IMS systems
- Learn and discover the type II commands that are essential to managing your IMS resources
- List and view resources in the IMS Configuration Manager repository
- Use powerful compare features to highlight differences between environments



Navigation

- Configuration
  - IMSplices
    - PLXD4
    - PLXDP
      - Commands
      - Databases
      - Descriptors
      - Members
      - Programs
      - Routing Codes
      - Systems
      - Transactions
  - Members
  - Repositories
    - TESTCASE
  - Systems
    - IADP (PLXDP)
    - IBDP (PLXDP)
    - ICDP (PLXDP)
  - Connection Servers
    - REA server

PLXD4 PLXDP

IMS Command: QUERY IMSPLEX SHOW(ALL)

Route:  \*  %  IADP  ICDP  IBDP

Hide Empty Columns

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IMSplice	MbrName	CC	Member	JobName	Typ					
CSLPLXDP	S1XDPO	0	S1XDPO	PLXDPO	OM		1.5.0	FTS1	READY,ACTIVE	
CSLPLXDP	S1XDPO	0	GU1PLXDP	ICOND01	IMSCON		12.1.0	FTS1	ACTIVE	
CSLPLXDP	S1XDPO	0	IADP	IADPCTL	IMS	DBDC	10.1.0	FTS3	READY,ACTIVE	
CSLPLXDP	S1XDPO	0	GU0PLXDP	ICOND00	IMSCON		12.1.0	FTS1	ACTIVE	
CSLPLXDP	S1XDPO	0	CDP1CQS	PLXDPCQS	CQS		1.7.0	FTS1	ACTIVE	
CSLPLXDP	S1XDPO	0	S3XDPO	PLXDPO	OM		1.5.0	FTS3	READY,ACTIVE	
CSLPLXDP	S1XDPO	0	S1XDPRM	PLXDPRM	RM	SNGLRM	1.5.0	FTS1	READY,ACTIVE	
CSLPLXDP	S1XDPO	0	S1XDPS	PLXDPS	SCI		1.5.0	FTS1	READY,ACTIVE	
CSLPLXDP	S1XDPO	0	IBDPBRC	IBDPBRC	DBRC	001	11.1.0	FTS1	READY,ACTIVE	
CSLPLXDP	S1XDPO	0	ICDP	ICDPCTL	IMS	DBDC	12.1.0	FTS1	READY,ACTIVE	
CSLPLXDP	S1XDPO	0	CDP3CQS	PLXDPCQS	CQS		1.7.0	FTS3	ACTIVE	
CSLPLXDP	S1XDPO	0	IBDP	IBDPCTL	IMS	DBDC	11.1.0	FTS1	READY,ACTIVE	
CSLPLXDP	S1XDPO	0	IADPBRC	IADPBRC	DBRC	001	10.1.0	FTS3	READY,ACTIVE	
CSLPLXDP	S1XDPO	0	S3XDPS	PLXDPS	SCI		1.5.0	FTS3	READY,ACTIVE	

Databases Databases - Not Initi... Programs - DB Unavail... DBFSAMP3/DBs Detail Databases - Stopped DBFSAMD1/Pgms. Detail Members

Console

Manage live systems

Learn the commands required to get this information

View resources in the ICM repository



# Powerful Compare Options

Source	PgmName	MbrName	RgnType	BMPTType	FP	DOPT	GPSB	Rsdnt	LRsdnt	TranStat	PgmLang	SchdType	LclStat
1	DBFSAMP2	IADP	BMP	Y	N	N	N		N	N		SERIAL	
2	DBFSAMP2	IBDP	BMP	Y	N	N	N		N	N		SERIAL	
1	DBFSAMP3	IADP	IFP	N	E	N	N		N	N		SERIAL	
2	DBFSAMP3	IBDP	IFP	N	E	N	N		N	N		SERIAL	DB-NOTAVL

Highlight status differences relative to a baseline

Source	PgmName	MbrName	RgnType	BMPTType	FP	DOPT	GPSB	Rsdnt	LRsdnt	TranStat	PgmLang
2	ABORTPRG	IBDP	MPP	N	N	N	N		N	N	
1	AUTPSB11	IADP	JMP	N	N	N	N		N	N	
2	AUTPSB11	IBDP	JMP	N	N	N	N		N	N	
1	BADNAME	IADP	MPP	N	N	N	N	Y	N	N	
1	BILLPGM	IADP	MPP	N	N	N	N		N	N	
2	BILLPGM	IBDP	MPP	N	N	N	N		N	N	

Identify resources that exist on one system but do not exist on the other

Source	PgmName	MbrName	RgnType	BMPTType	FP	DOPT	GPSB	Rsdnt	LRsdnt	TranStat
1	FUNPSB41	IADP	MPP	N	N	N	N		N	N
2	FUNPSB41	IBDP	IFP		N	N	N		N	N

Find inconsistencies

## System Access Control

- Enables better devolvment of responsibilities
- Protects developers from making inadvertent modifications to resources not under their control
- Enables application group to control their development systems
- Protects production systems from accidental change
- Implemented using SAF interface with new security class for profiles

## Conclusions

- IMS Configuration Manager simplifies the management of IMS resources and parameters
  - Using DRD or traditional SYSGEN processes
- Provides the same level of controls you had in a SYSGEN environment
- The resource installation process is streamlined making it easy to synchronize offline source with online systems
- The availability of rollback helps customers introduce changes as a unified set
- Back out provides auditors with peace of mind
- IMS Configuration Manager provides a foundation from which an end-to-end IMS administration and management system can evolve

## More information

- IBM IMS Configuration Manager website:  
<http://www.ibm.com/software/data/db2imstools/imstools/ims-configuration-manager/>
- Jim Martin:  
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