

IMS Configuration Manager: modernize and standardize the management of IMS



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Introduction

- Challenges to modernizing IMS
- The role of IMS Configuration Manager
- Workflows
- GUI-based scenarios
- Summary and future directions

Time to market

- Introduce changes as they are needed
- Allow developers to do more independently
 - Manage sandbox systems
 - Submit change requests

Availability and reliability

- Reduce impact of changes
- Makes changes easier to reverse
- Ensure you know what is changing where

Modernization drivers

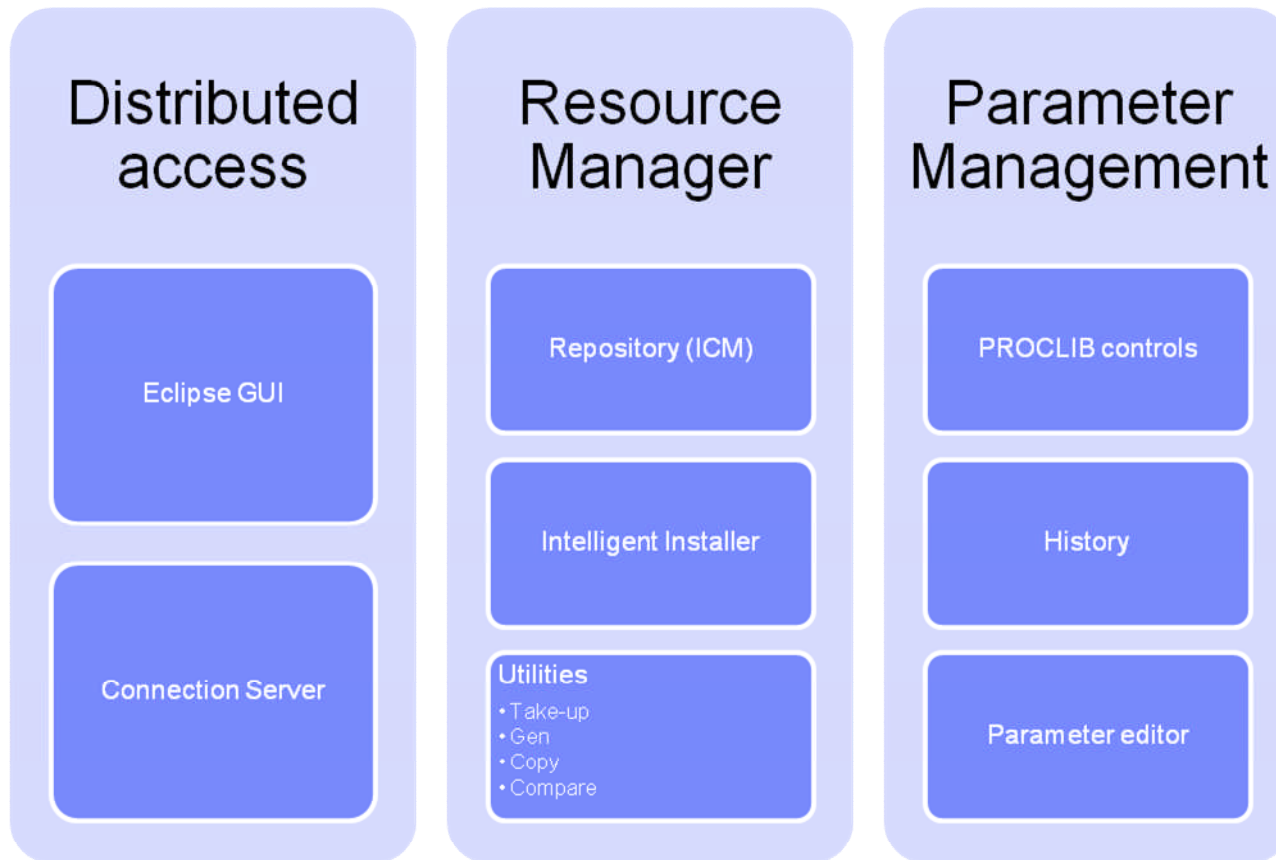
Loss of 'tribal' knowledge

- Reliance on in-house applications
- Lack of standardization of processes
- Disparate and inconsistent configuration through organic processes of acquisition and diversification

Broader challenges

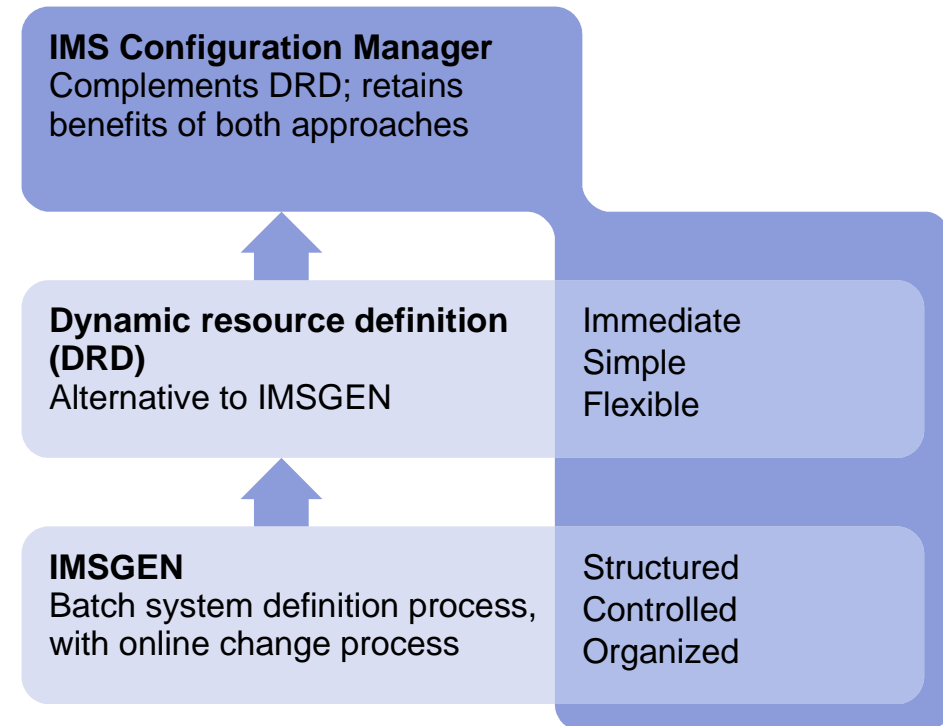
- Change is fundamentally disruptive to existing processes
- Lack of understanding of the end-to-end configuration
- Organizational impact

Overview



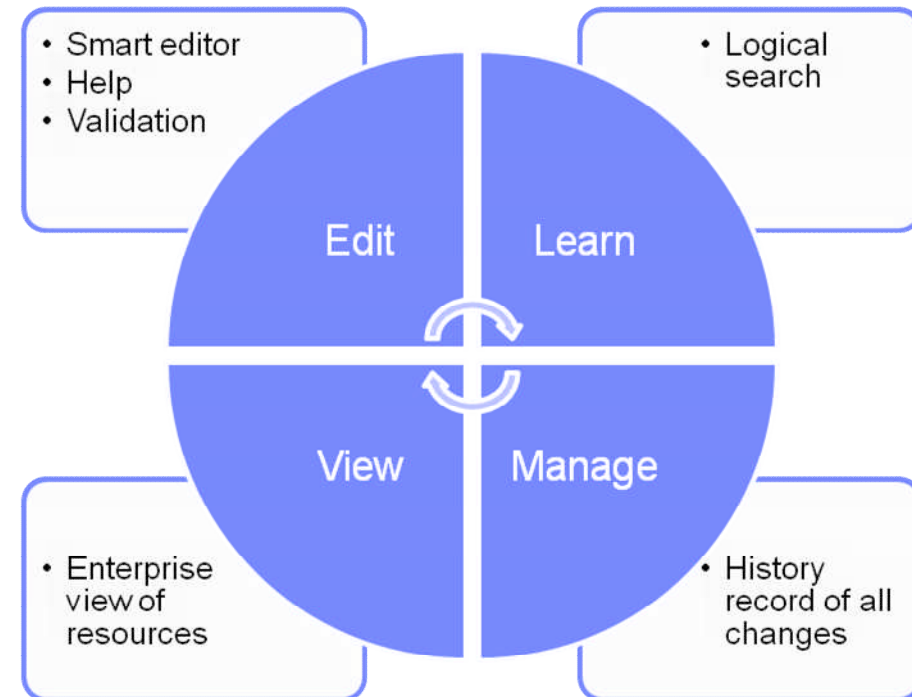
Streamline resource management with DRD

- 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



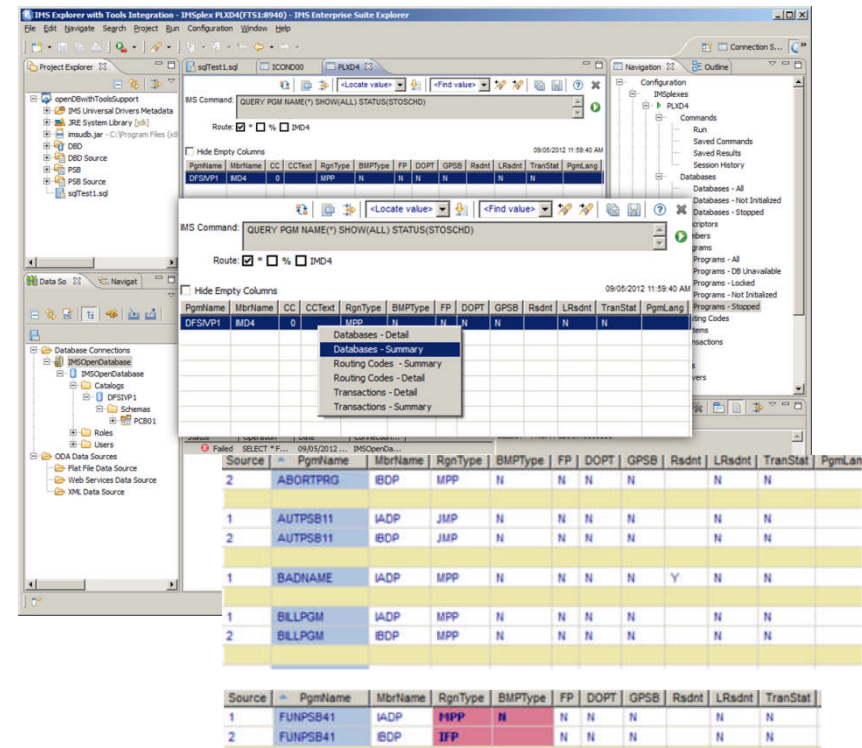
Modernize parameter management

- 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

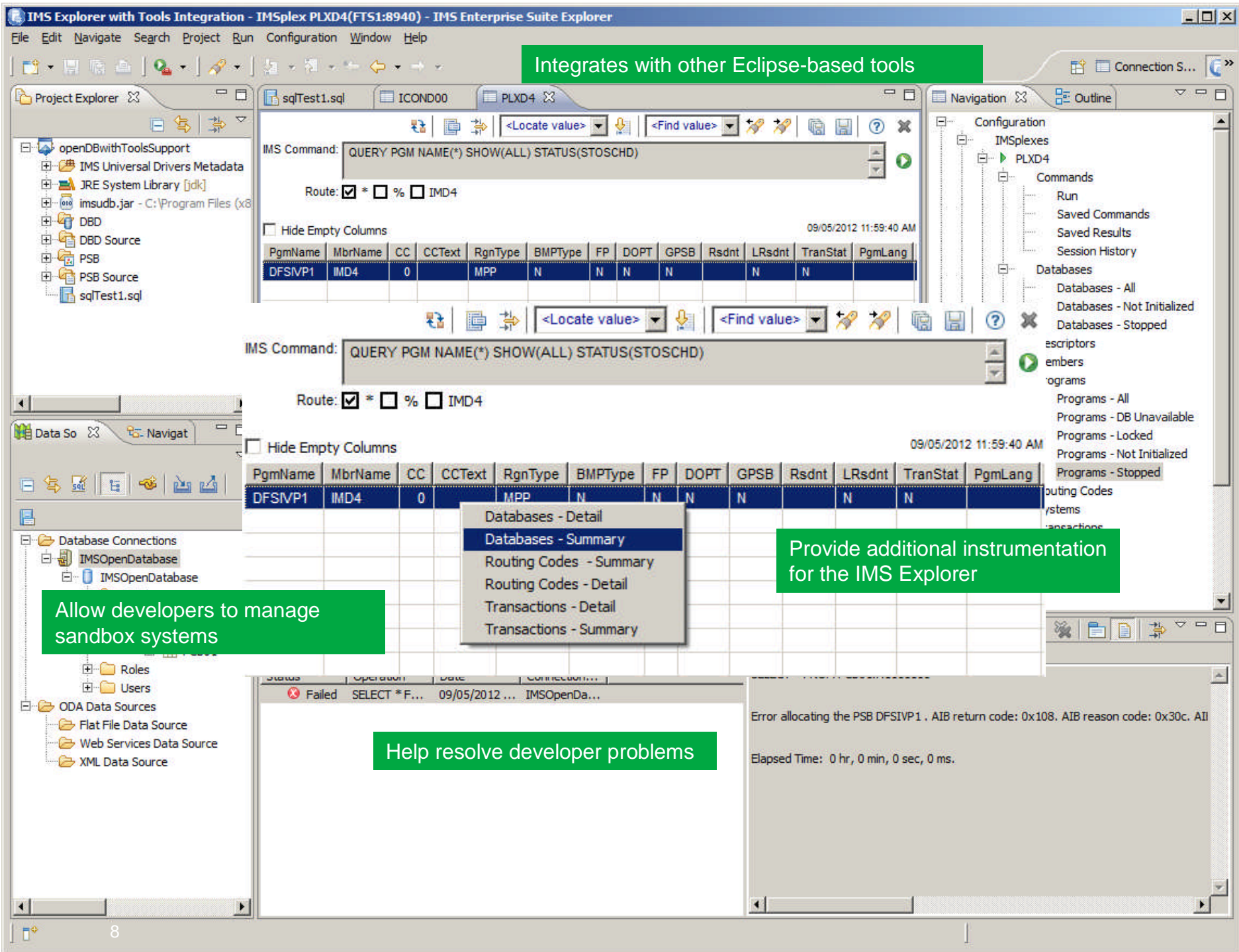


Centralized management of IMS systems

- Browse objects managed by IMS Configuration Manager
- Submit commands to running IMS systems
- Search, filter, compare, and export results to spreadsheet applications
- Tight integration with IMS Connect Extensions GUI
- Works with IMS Explorer, CICS Explorer, and Rational



Source	PgmName	MbrName	RgnType	BMPTYPE	FP	DOPT	GPSB	Rsdnt	LRsdnt	TranStat	PgmLang
2	ABORTPRG	BDP	MPP	N	N	N	N	N	N	N	N
1	AUTPSB11	IADP	JMP	N	N	N	N	N	N	N	N
2	AUTPSB11	BDP	JMP	N	N	N	N	N	N	N	N
1	BADNAME	IADP	MPP	N	N	N	N	Y	N	N	N
1	BILLPGM	IADP	MPP	N	N	N	N	N	N	N	N
2	BILLPGM	BDP	MPP	N	N	N	N	N	N	N	N
1	FUNPSB41	IADP	MPP	N	N	N	N	N	N	N	N
2	FUNPSB41	BDP	IFP	N	N	N	N	N	N	N	N



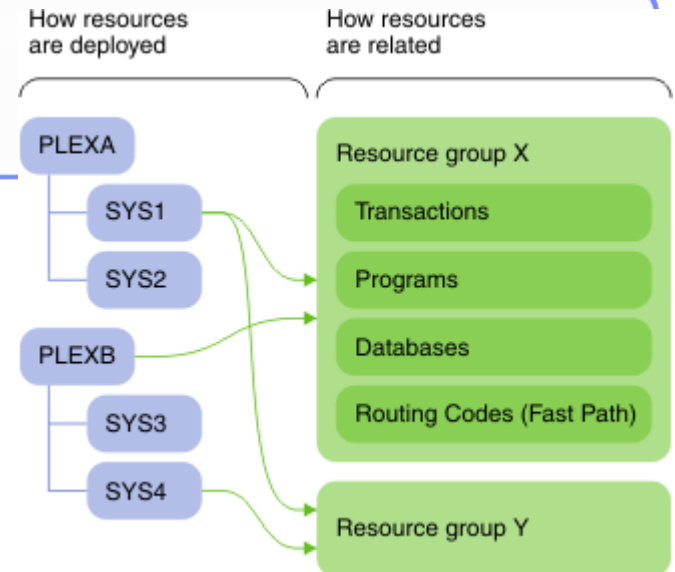
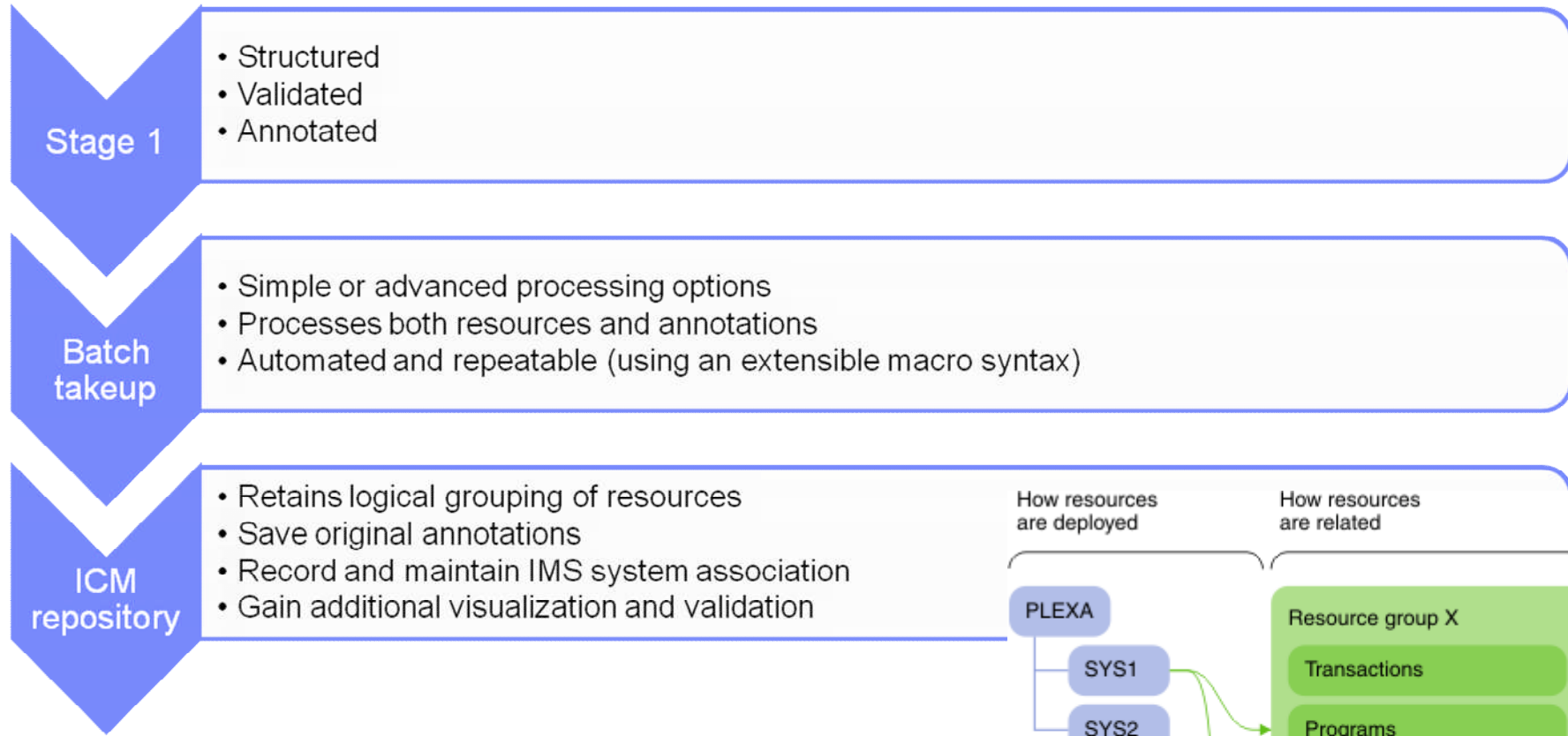
Integrates with other Eclipse-based tools

Allow developers to manage sandbox systems

Provide additional instrumentation for the IMS Explorer

Help resolve developer problems

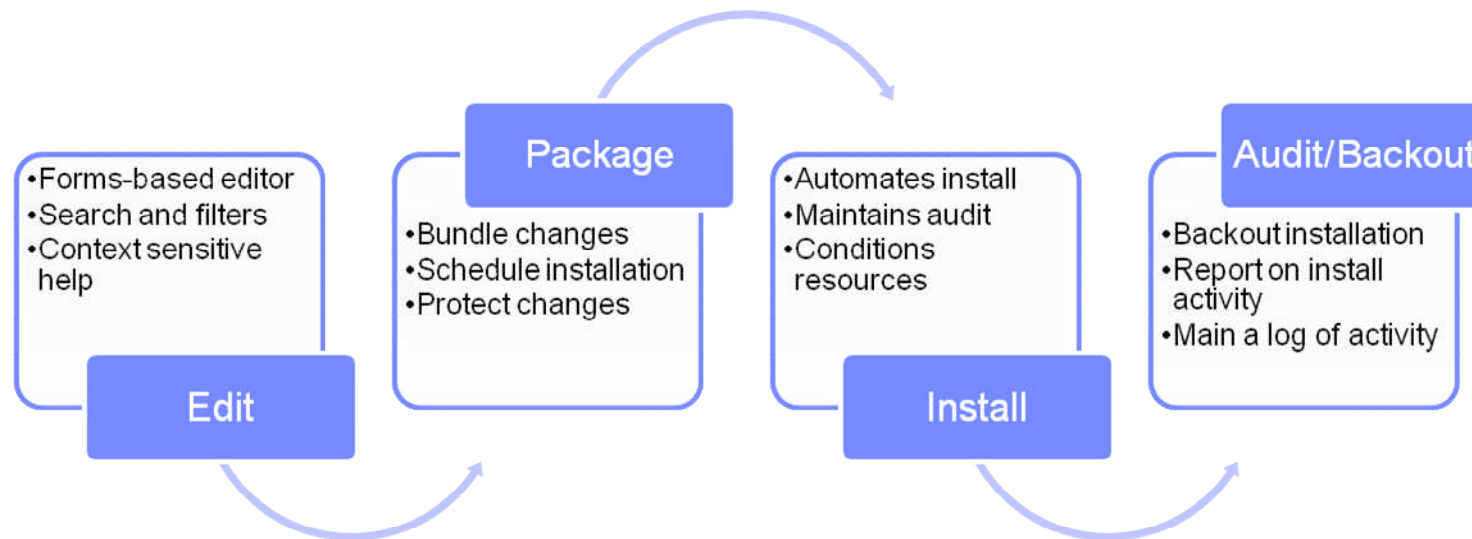
Transition to ICM is simple



Workflow: updating and implementing changes to resources

- Provides an *offline* update process
- Bundle changes together into change packages
- Rollup one batch of changes and then begin work on the next update cycle
- If you want to utilize DRD, apply changes to live system with intelligent installer or by creating an RDDS
- You can still use the product to perform a GEN

ICM Processes: updating resources using DRD



Simple forms for creating and updating resources

```

File  Help
-----
EDIT                               Transaction TX001
Command ==>> _____

Update transaction definition.

Transaction . : TX001
Description . : You can use descriptions and notes ----->  Notes...
                                                    More:      +

Attribute          Description
AOCMD . . . . . N          AOI command option (CMD, N, TRAN, Y)
CLASS . . . . . 1          Class (1-999)
CMTMODE . . . . SNGL       Commit mode (SNGL, MULT)
CONV . . . . . N          Conversational (Y, N)
DCLWA . . . . . -          Log write-ahead option (Y, N)
DIRROUTE . . . . N          MSC direct routing option (Y, N)
EDITRTN . . . . . _____ Input edit routine
EDITUC . . . . . Y          Edit to uppercase (Y, N)
EMHBSZ . . . . . _____ EMH buffer size (12-30720)
EXPRTIME . . . . 0          Expiration time (0-65535)
FP . . . . . N          Fastpath processing option (N, E, P)
INQ . . . . . N          Inquiry option (Y, N)
LCT . . . . . 65535       Limit count (1-65535)
    
```

- Context sensitive help
- Extensive validation
- Notes

Structure your process

```

File Help
Change Packages - System View      Row 1 of 5 More: <>
Command ==> NEW                    Scroll ==> PAGE

IMSID . . . . . : IMSA  Version . . . : 11.1
System Description :
IMSpIex . . . . . : PLXA

/
Create Date/Time  Change Package Name  Status  Condition  Type
*
2011-03-17 15.56.21 EMER PLXREGEN          CLOSED  NOTSCHED  CMD
2011-03-17 15.55.53 PLXREGEN          CLOSED  NOTSCHED  GEN

Create Change Package
Command ==>
*****
Change Package . . . APP2.01
Description . . . Updates to new app
IMSpIex . . .
IMSID . . .
Change Packa
Output Type

File Help
Select Change Package Resources    Row 1 to 15 of 15
Command ==>                        Scroll ==> PAGE

CP Name . . . . . : APP2.01
CP description . . Updates to new app
IMSpIex . . . . . : PLXA
IMS ID . . . . . : IMSA  Version . . . : 11.1

View . . . . . 2
1. Resource Groups
2. Resource Group elements

/
CP  Resource  Type  Resource Group  Lev  Changed
*
S  BILL      DATABASE BILL           S  2011-03-16 14.27
S  BILL      TRAN     BILL           S  2011-03-16 14.27
S  BILLPGM   PROGRAM BILL           S  2011-03-16 14.27
S  BILLPGM2  PROGRAM BILL           S  2011-03-16 14.29
S  BILLSYSO  TRAN     BILL           S  2011-03-16 14.28
C  BILL2     TRAN     BILL           C  2011-03-16 14.26
C  BILL3     TRAN     BILL           C  2011-03-16 14.26
C  BILL4     TRAN     BILL           C  2011-03-16 14.26
C  BILL5     TRAN     BILL           C  2011-03-16 14.27
C  DBPART    DATABASE UTIL          C  2011-03-17 15.50
C  IVP       TRAN     UTIL           C  2011-03-18 14.41
C  PART     PROGRAM UTIL           C  2011-03-18 14.42
C  UTILPGM   PROGRAM UTIL           C  2011-03-17 15.50
C  UTILT1    TRAN     UTIL           C  2011-03-17 15.50
C  UTILT2    TRAN     UTIL           C  2011-03-17 15.50
***** Bottom of data *****

File Help
Command ==>
Change Package
Description . .
IMSpIex . . . .
IMSID . . . . .
/
Change Package type 2 1. COMMAND (CMD) - Selected resources
*                    2. GENERATE (GEN) - Complete system image
Output Type . . . . . 1 1. Stage 1 Macros
                    2. Cold Start RDDS
    
```

When ready, bundle changes in a package

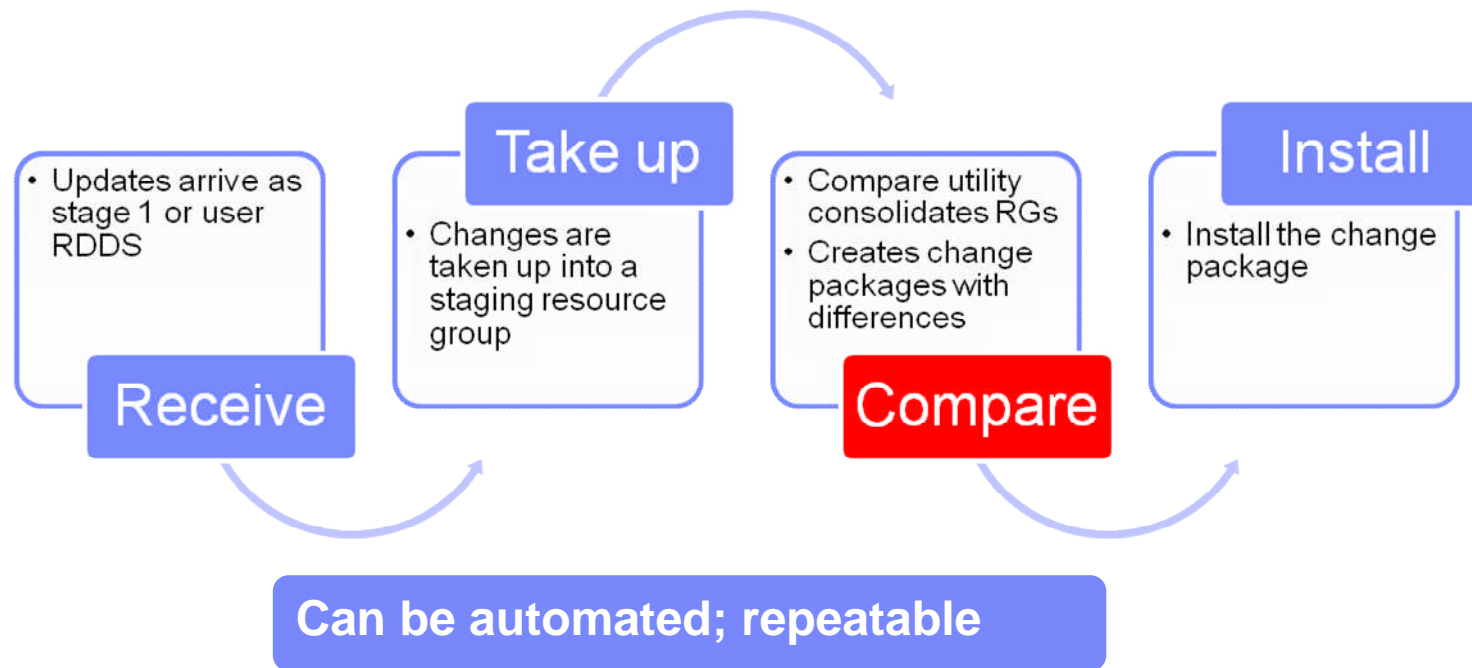
Pick individual resources

Bundle all resources for a given system

Continue working on the next update cycle

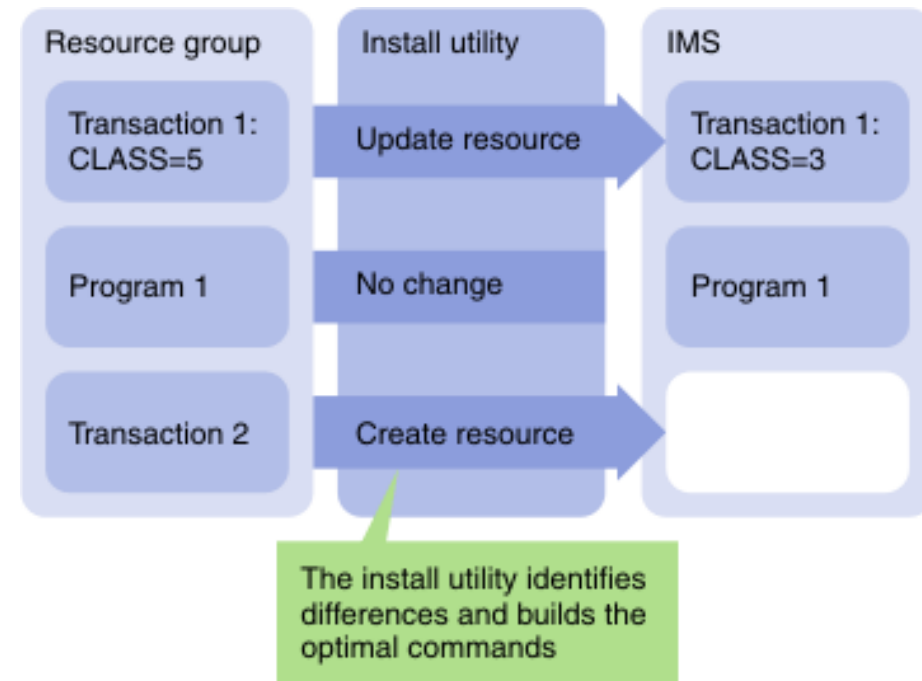
Install or gen the resources

Alternative: providing updates as stage1



IMS Configuration Manager resource installer

- The installer provides enhanced services on top of the IMS type-2 command interface
- Automatically determines optimum method of install
- Rollback option
- Full-logging of install activity
- Builds and records system image



The installer conditions resources for online installation

- Automated resource installation using *IBM's documented best practices*
- Identifies resources that are in use
- Distinguishes between recoverable and unrecoverable errors
- 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

ICM Processes: Generate

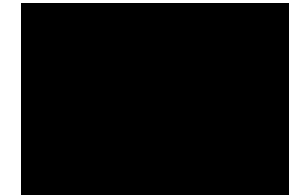
ICM
Repository

```
File Option Help
-----
_ DEV - Billing
_ DEV - HR
_ PROD - Billing
_ PROD - HR
F1 - Help F2 - Scroll
```

ISPF dialog

ICM
Change
Package

Gen utility



Import
RDDS

- An ISPF dialog is provided to edit and manage resources
- An audit log is maintained of all changes made through ICM
- Used to enable support for current Sysgen environments during DRD conversion
- Enables DRD resource updates via IMS System Coldstart

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      Lib 1 Created 2009/02/11 Changed 2009/02/11 13:26:45 ID 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      Lib 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

```

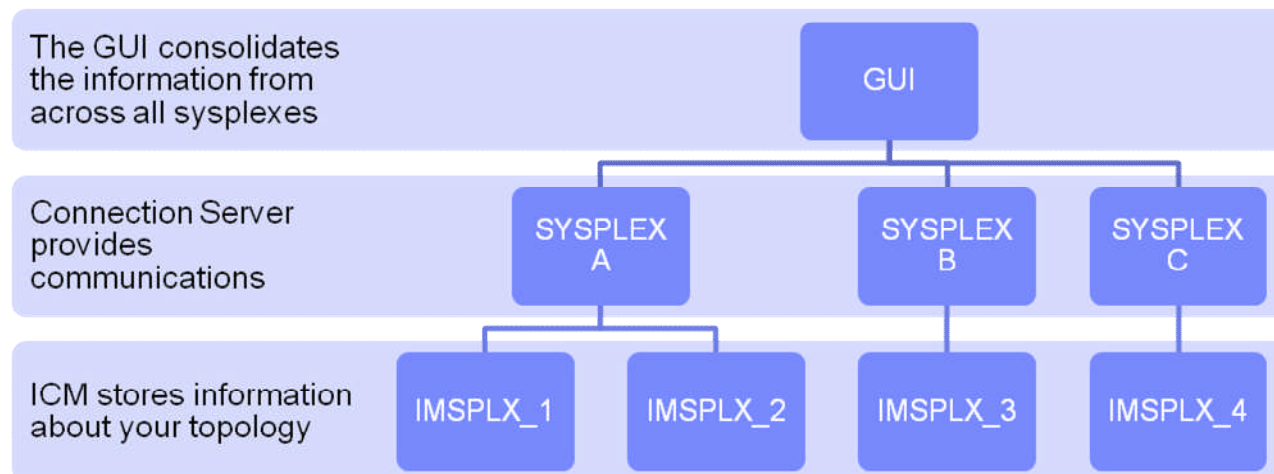
File Edit Edit_Settings Help
-----
EDIT      REA.CLIST(DFSDFBLN) - 01.01          Columns 00001 00072
Command ==> _____ Scroll ==> CSR
CHECK    Validate the member syntax
MODEL    Insert a new parameter with syntax assistance
HELP     Press F1 to request parameter sensitive help
***** ***** Top of Data *****
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

GUI Overview

- Centralize and consolidate your system and plex configurations
- Manage IMS systems as well as resources and parameters
- Powerful compare capabilities
- Analyze output: filter, highlight, summarize, and export to spreadsheet applications

A central location to analyze your configuration



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/>

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