

The A-to-Z of IMS Enterprise Suite

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Agenda

- IMS SQL Support + DRDA DDM Support
- **IMS Enterprise Suite 3.1**
 - IBM IMS Data Provider for Microsoft .NET  **NEW !**
 - Explorer for Development
 - Mobile Feature Pack  **EVEN
NEWER
!**
 - SOAP Gateway
 - Connect API for Java V2.2
- **IBM Management Console for IMS and DB2**
 - http://www-01.ibm.com/common/ssi/ShowDoc.wss?docURL=/common/ssi/rep_sm/c/872/ENUS5655-TAC/index.html&lang=en&request_locale=en

How to find Enterprise Suite 3.1

ibm.com/ims → Downloads tab

IBM IMS

- Overview
- Products
- What's new?
- IMS User Groups
- Downloads**
- Resources

Downloads

IMS Enterprise Suite

Integration solutions and tooling that support open integration technologies, enable new application development, and extend access to IMS transactions and data. The IMS Enterprise Suite download includes the following components that run on Windows or Linux:

- IMS Enterprise Suite Data Provider for Microsoft .NET
- IMS Enterprise Suite SOAP Gateway
- IMS Enterprise Suite Connect APIs for Java and C
- IMS Enterprise Suite Explorer for Development
- IMS Enterprise Suite Java Message Service API

[Download now](#)

IMS TM Resource Adapter


Enables you to more easily create Java applications that either access IMS transactions or process callout requests from IMS applications over the Internet. The Message Format Service support for Service Oriented Architecture (MFS SOA) run time support is also embedded in the IMS TM Resource Adapter.

[Download now](#)

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 **The Role of IMS in Today's Enterprise**
This new analyst report on IMS, by Colin White from BI Research, looks at the role of IMS in today's highly complex IT environment and examines how organizations can integrate IMS into an open and flexible enterprise IT infrastructure that can evolve as technology changes.

[Get the report \(448KB\)](#)

Related links

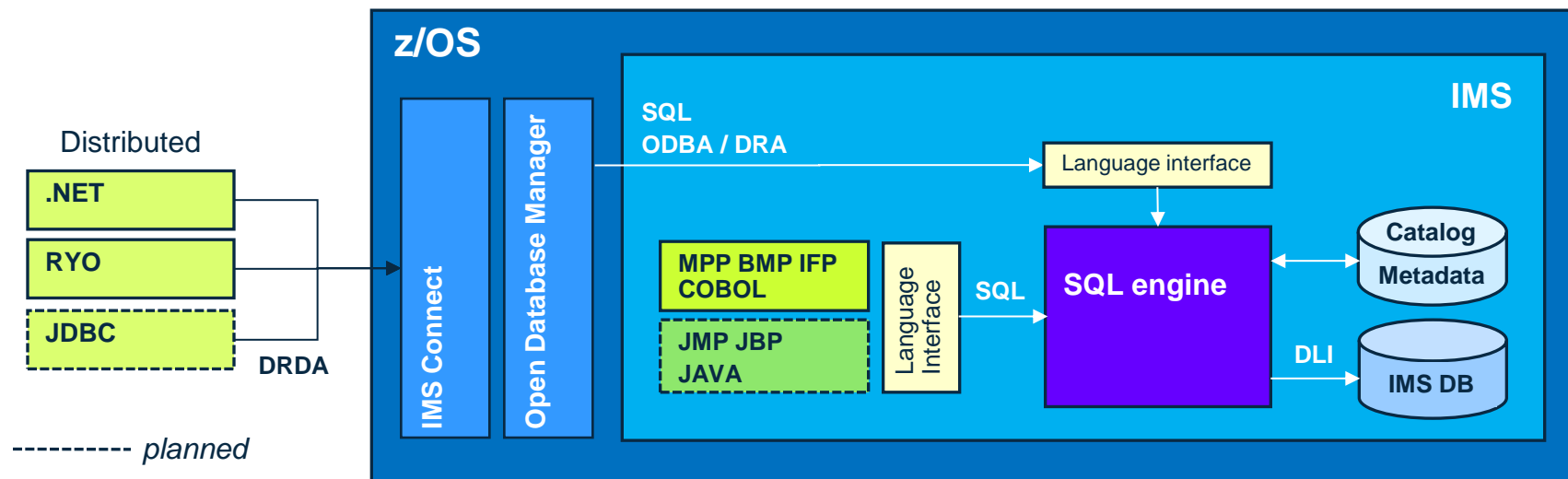
- [Success stories](#)
- [Events](#)
- [Training and certification](#)
- [Services](#)
- [Support](#)

Join the IMS conversation

IMS discussions, idea sharing, direct interactions with experts, and more

IMS V13 SQL Support

- SQL Engine for COBOL and distributed applications (.NET/JDBC)
- Provides standard SQL keywords to easily access IMS data
 - ✓ SELECT, INSERT, UPDATE, DELETE
 - ✓ Uses Dynamic SQL programming model
 - ✓ Converts SQL statements to DLI calls
 - ✓ Supports a subset of SQL keywords that are currently supported by IMS Universal JDBC driver
- Uses database metadata in IMS Catalog
 - ✓ No need to generate metadata for use in applications



IMS DRDA DDM command support for native SQL enhancement

- The DDM command support for native SQL requires the Open Database Manager (ODBM) component of the IMS Common Service Layer (CSL).
 - ODBM translates the DDM commands into SQL and then routes the SQL calls to the appropriate IMS system
 - The receiving IMS system's native SQL translates the SQL into DL/I
- IMS Data Provider for Microsoft .NET uses this support
- IMS Universal Drivers to be updated via service process
 - Enables SQL processing to be handled directly by IMS instead of on the client side
 - Results in increased performance for the IMS Open Database solution

IMS Data Provider for Microsoft .NET



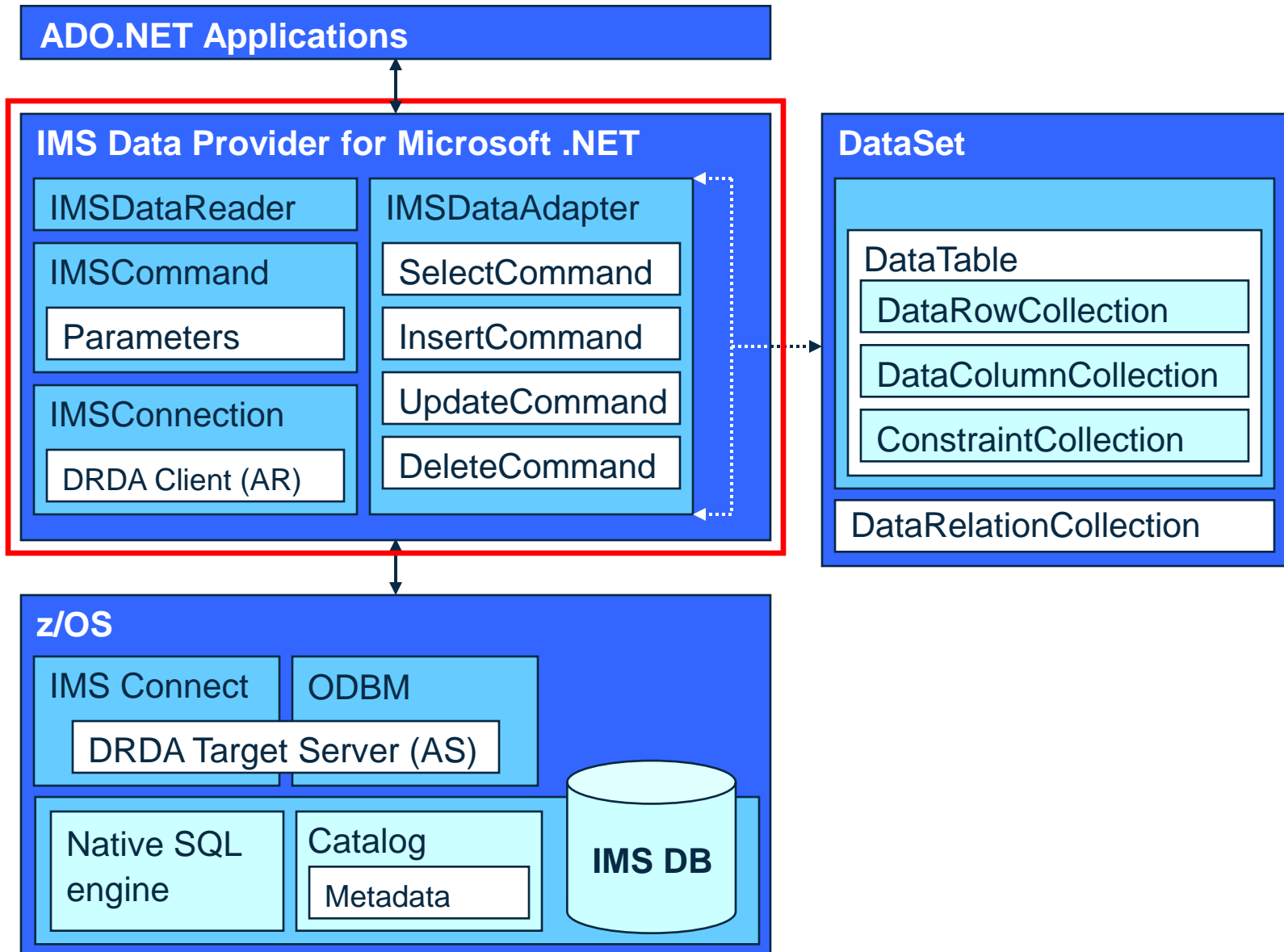
Introducing

IBM IMS Data Provider for Microsoft .NET

- **IBM IMS Data Provider for Microsoft .NET**
 - a component of IMS Enterprise Suite
- This product enables standard ADO.NET SQL access to IMS data from .NET applications in a simple, fast, well proven way
 - Develop and reuse .NET applications (written in any .NET language, e.g. C#, VB, VC++) to access IMS data
 - Perform CRUD operations via SQL directly against IMS data
 - No need for intermediate steps/tools (such as DB2 stored procedures, web services, or 3rd party products) to access IMS databases from .NET



IMS Data Provider Architecture



C# Application Example (SELECT)

Example.cs ×

```
using IBM.Data.IMS;

static void IMSReader()
{
    // Use connection string to configure connection properties
    IMSConnection connection = new IMSConnection("Data source = MyIMS,5555;
        Database = Insurance");
    // Establish connection to IMS database
    connection.Open();

    // Specify SQL query in the IMSCommand object
    IMSCommand command = new IMSCommand("SELECT * FROM PCB01.CUSTOMERS",
        connection);

    // Execute query and return a DataReader object
    IMSDataReader reader = command.ExecuteReader();

    // Iterate through results and output on the screen
    while (reader.Read())
        Console.WriteLine(reader.GetString(0));

    // Close the reader
    reader.Close();

    // Close the connection
    connection.Close();
}
```

C# Application Example (INSERT)

```
Example.cs X
using IBM.Data.IMS;

static void IMSWriter()
{
    // Use connection string to configure connection properties
    IMSConnection connection = new IMSConnection("Data source = MyIMS,5555;
        Database=Insurance");
    // Establish connection to IMS database
    connection.Open();

    // Specify SQL command in the IMSCommand object
    IMSCommand command = new IMSCommand("INSERT INTO PCB01.CUSTOMERS (NAME,
        POLICY) VALUES ('EVGENI', 1210050000)", connection);

    // Execute command, return number of affected rows
    int i = command.ExecuteNonQuery();

    // Close the connection
    connection.Close();
}
```

- INSERT, UPDATE and DELETE commands are used identically

More features

- Dynamic **Parameters**
- **Local Transactions**
- **Connected** and **disconnected** modes
- **Generic coding** (factory based) interface
- **Connection pooling** for improved performance
- Access to **Metadata** (result set or entire database)
- RACF **authentication** and AT-TLS **encryption** supported

IBM IMS Data Provider for Microsoft .NET

GUI / Web Development

- Visual Studio is a powerful environment for developing GUI and web applications
 - Interactive applications that work with IMS data are easy to develop

My ASP.NET APPLICATION

Home About

WELCOME TO IMS AND ASP.NET!

	WARDNAME	WARDNO	HOSPNAME	HOSPCODE
Edit	GENERAL	0001	ALEXANDRIA	R1210010000A
Edit	SPECIAL	0002	ALEXANDRIA	R1210010000A
Edit	INTERNAL	0003	ALEXANDRIA	R1210010000A
Edit	SURGICAL	0004	ALEXANDRIA	R1210010000A
Edit	COSMETIC	0005	ALEXANDRIA	R1210010000A
Edit	INTENSIVE	0007	ALEXANDRIA	R1210010000A
Edit	GENERAL MED	0001	SANTA TERESA	R1210020000A
Edit	DERMATOLOGY	0002	SANTA TERESA	R1210020000A
Edit	PEDIATRICS	0003	SANTA TERESA	R1210020000A
Edit	ORTHOPEDICS	0004	SANTA TERESA	R1210020000A

1 2

Query

```
SELECT HOSPNAME,HOSPCODE,HOSPLL FROM PCB01.HO!
```

Fill

Name OrderId

	HOSPNAME	HOSPCODE	HOSPLL
▶	ALEXANDRIA	R1210010000A	900
	SANTA TERESA	R1210020000A	900
	SANTA CLARA	R1210030000A	900
	NEW ENGLAND	R1210040000A	900
	SAINT VINCENT	R1210060000A	900
*			

Insert Update Delete

IBM

Getting Started

- Documentation:

http://publib.boulder.ibm.com/infocenter/dzichelp/v2r2/topic/com.ibm.ims.net31.doc/net_intro.htm

- “Verifying installation” page is a good place to start
- Look for `getting_started.txt` and a `sample project` in the installation directory after installing the .NET Data Provider
- Video tutorials and demos on **YouTube**:
 - http://bit.ly/IMS_YouTube

System Requirements

- Software requirements
 - IMS DB v13, APARs PM96324 and PI05437
 - IMS Connect, ODBM
 - Catalog
 - .NET Framework 4.0
 - Windows XP, Windows 7
- Hardware requirements
 - For IMS DB - same as IMS v13
 - For .NET Data Provider and Visual Studio
 - Computer that has a 1.6GHz or faster processor
 - 1 GB (32 Bit) or 2 GB (64 Bit) RAM (Add 512 MB if running in a virtual machine)
 - 3GB of available hard disk space
- Tooling
 - Microsoft Visual Studio

Related topics at the Symposium

Worlds Together: IMS and .NET

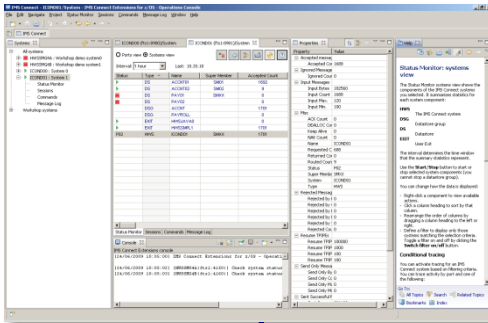
A11

IMS Explorer for Development



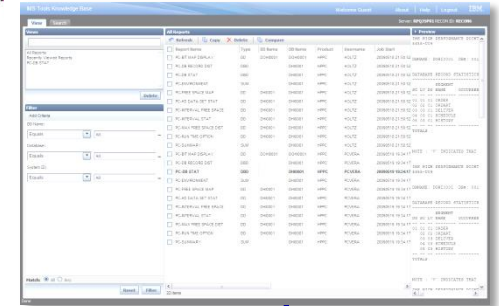
IMS User Interface

Explorer for Development (Eclipse)

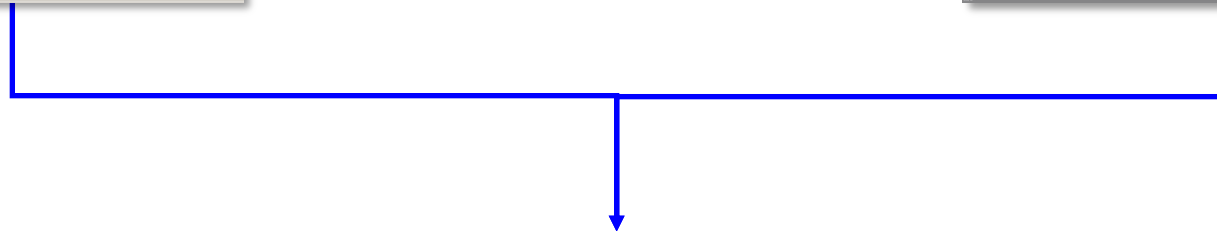


Developer

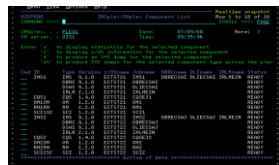
IBM Management Console for IMS and DB2 (Web Browser)



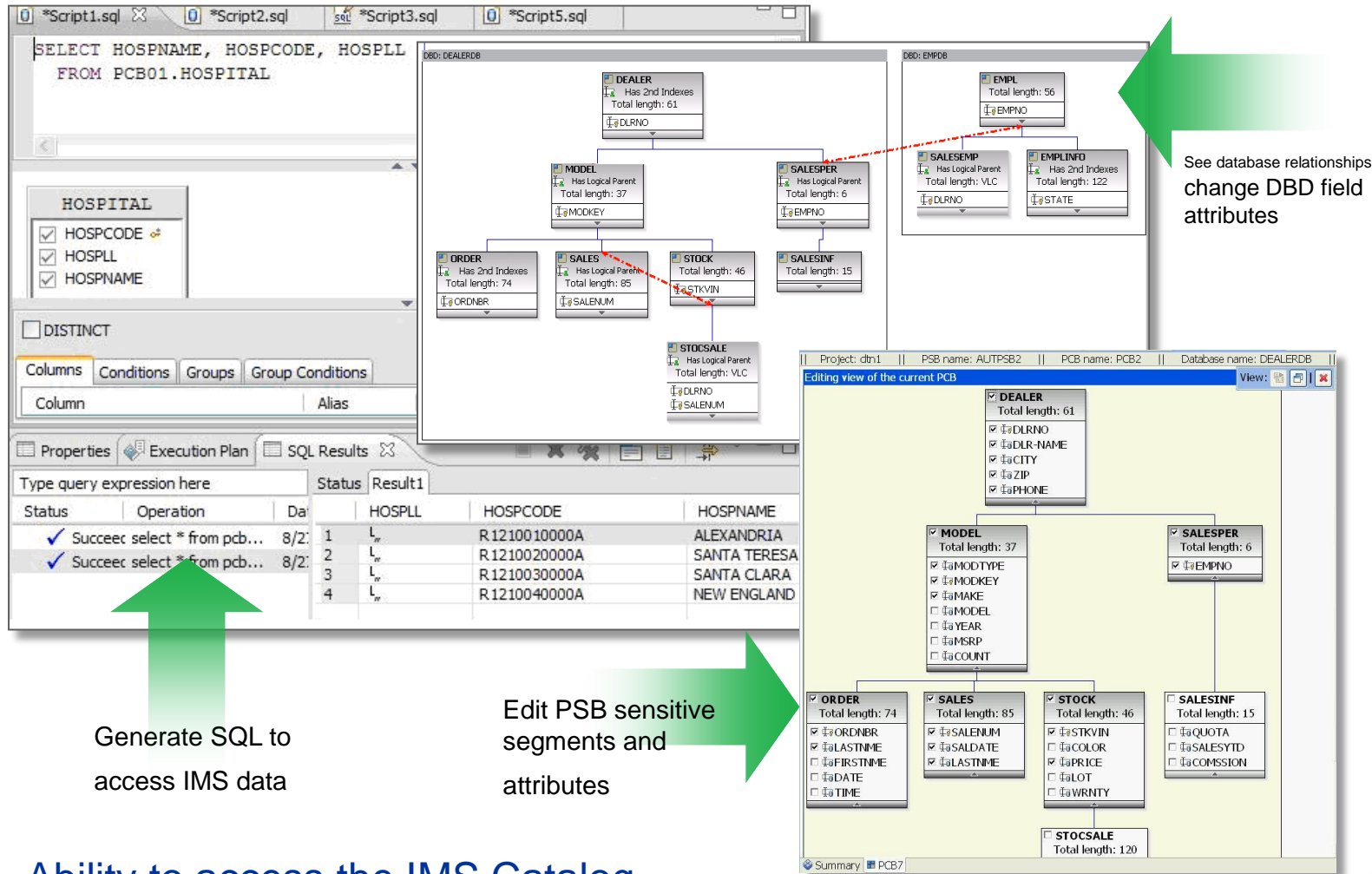
Administrator



• ISPF



IMS Enterprise Suite V3.1 Explorer for Development



The screenshot displays the IMS Explorer for Development interface. On the left, a SQL query window shows a query: `SELECT HOSPNAME, HOSPCODE, HOSPLL FROM PCB01.HOSPITAL`. Below the query is a table with columns `HOSPNAME`, `HOSPCODE`, and `HOSPLL`. The main area shows a database schema diagram for `DEALERDB` with tables like `DEALER`, `MODEL`, `SALES`, `STOCK`, `SALESINF`, `SALESEMP`, `EMPL`, and `STOCKSALE`. A green arrow points to the `EMPL` table with the text: "See database relationships change DBD field attributes". On the right, an "Editing view of the current PCB" shows a detailed view of the `DEALER` table with fields like `DLRNO`, `DLR-NAME`, `CITY`, `ZIP`, and `PHONE`. A green arrow points to this view with the text: "Edit PSB sensitive segments and attributes".

Generate SQL to access IMS data

Edit PSB sensitive segments and attributes

See database relationships change DBD field attributes

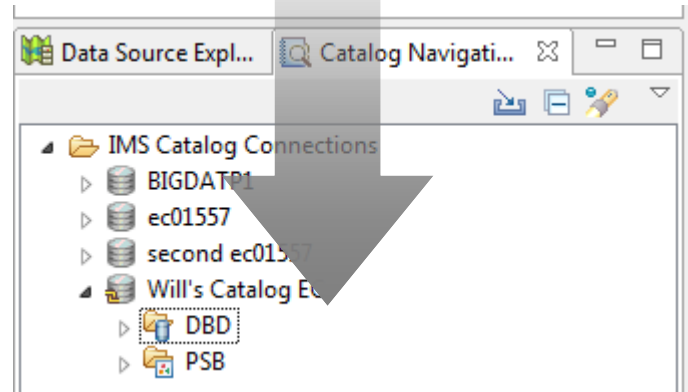
Ability to access the IMS Catalog

IMS Enterprise Suite Explorer for Development

- Enhancements for V3.1 include:
 - Ability to import large numbers of DBDs and PSBs.
 - Automatic imports of referenced DBDs when DBDs and PSBs from the IMS catalog or the host are imported.
 - Ability to import COBOL and PL/I data structures from the host.
 - Support for transaction unit testing.
 - Uses IMS Connect API for Java
 - Can be used in addition to IBM IMS Batch Terminal Simulator
 - Support for IMS catalog navigation.
 - View IMS resources in an IMS catalog-enabled system
 - Import IMS resources into IMS Explorer projects from the view.
 - Show all instances of a given resource or find referenced DBDs or PSBs
 - A Problems View for troubleshooting information
 - Shows resource problems and missing files

IMS Catalog Navigation View

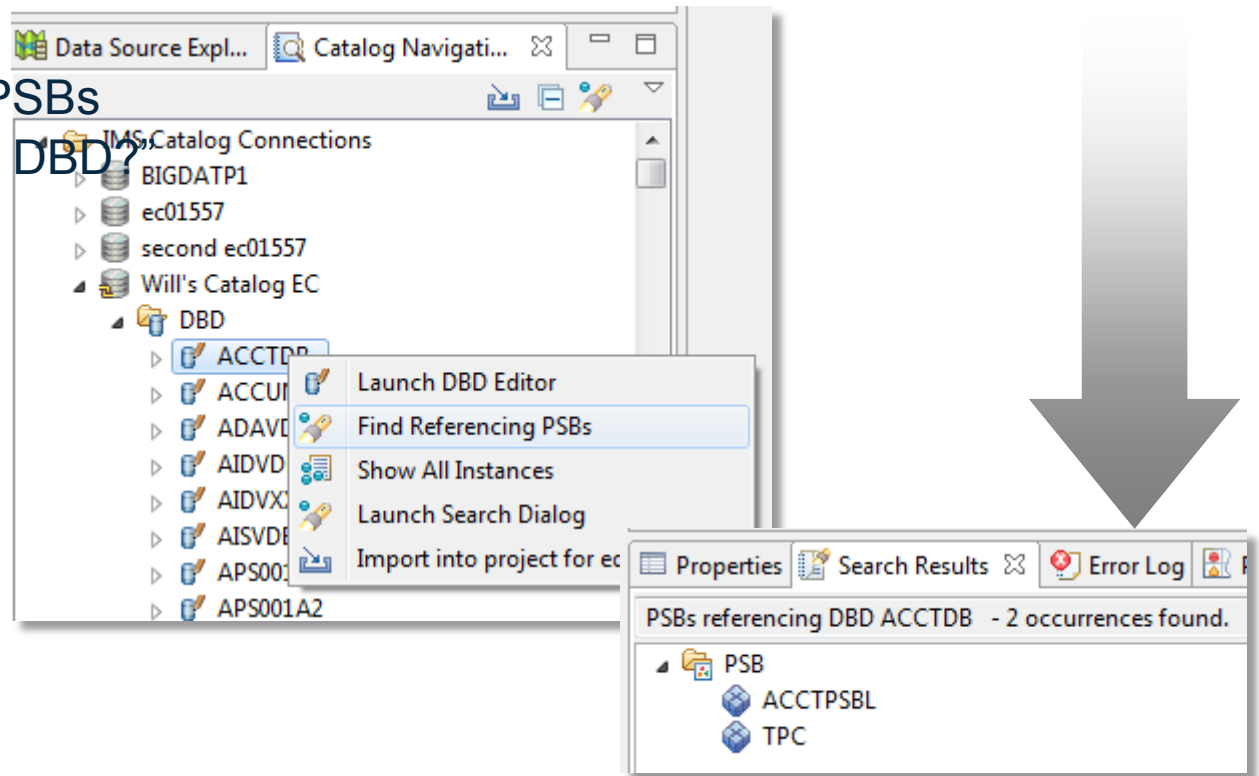
- Get a list of all the PSBs/DBDs in the system.



Built-in queries

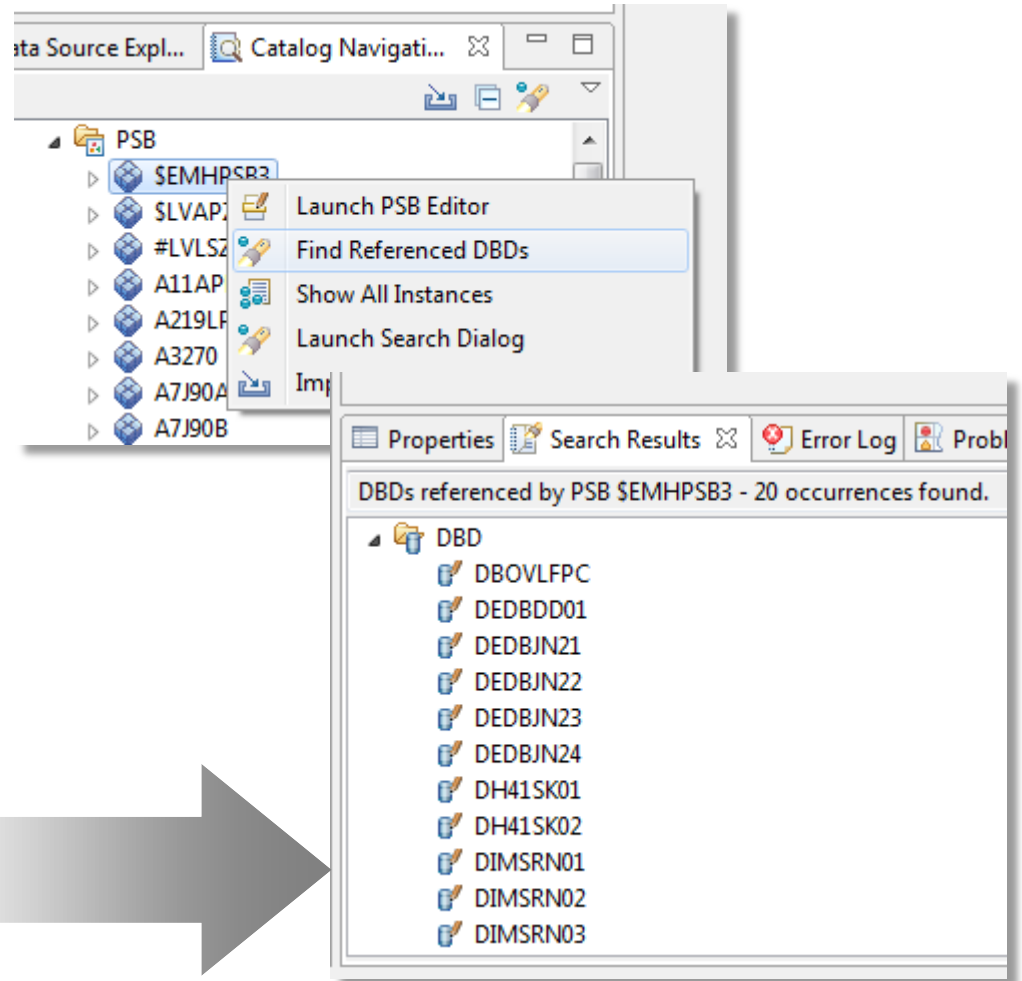
- Several built-in queries have been added to assist with resource and relationship discovery

- “What are all the PSBs that reference this DBD?”

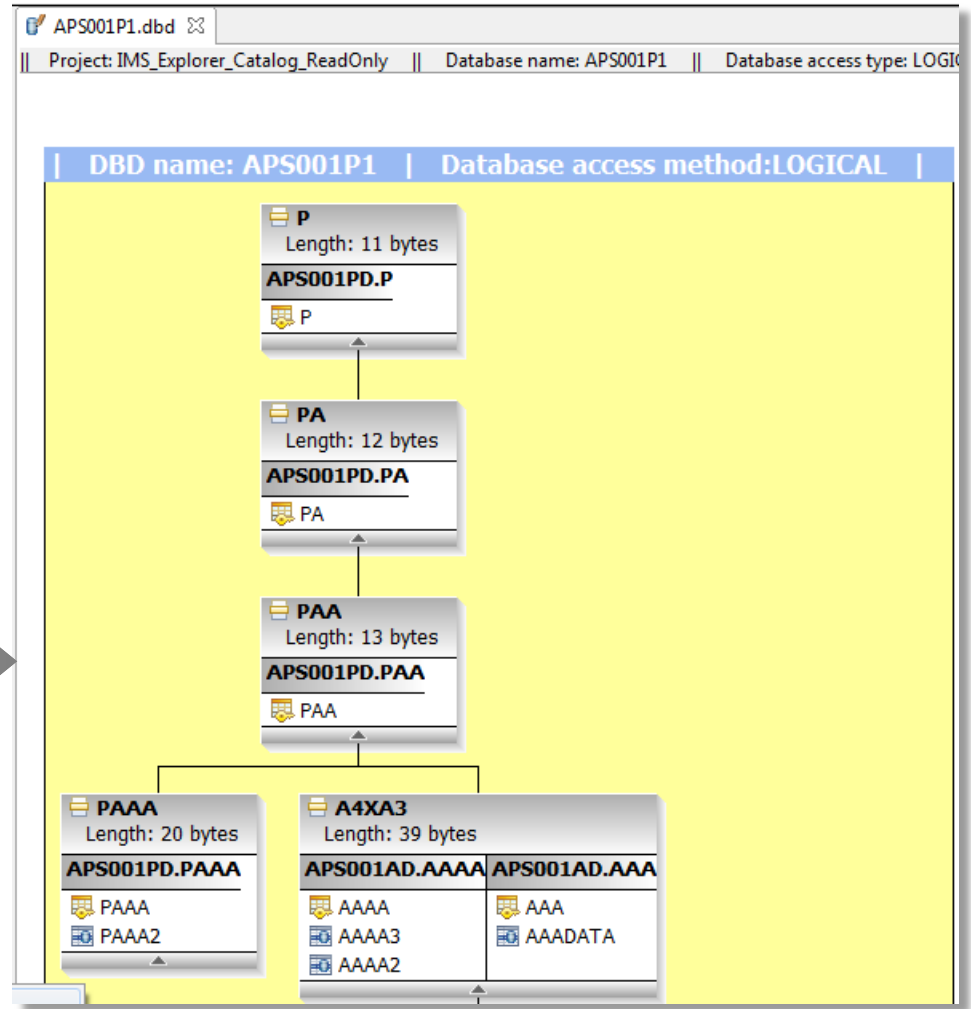
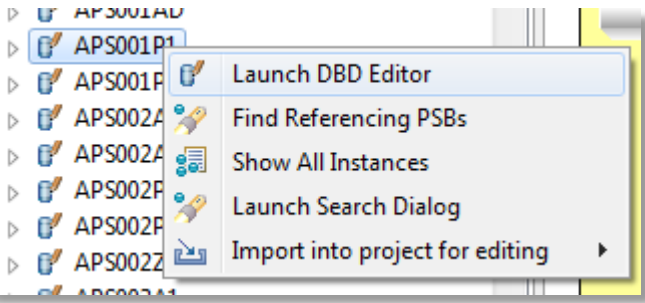


Built-in queries continued

- “What are all the DBDs referenced by this PSB?”



Graphically view resources directly from the IMS catalog



IMS Transaction Unit Test Support

- In a Transaction test project you can define a transaction and import application data structures to specify the layout of the input messages it consumes and output messages it returns.



The screenshot shows the 'IMS Explorer Transaction Message Editor' window for transaction 'IVTNO'. The window title is 'IVTNO.trn'. Below the title bar, the text reads: 'Define all the input and output messages for the transaction and import the application data structures for those messages.' The 'Trancode:' field contains 'IVTNO'. The main area is divided into two panes: 'Input Messages' and 'Output Messages'. Both panes show a tree structure: 'Display' -> 'Segments' -> 'Segment 1' -> 'Data Structures'. Under 'Input Messages', the 'INPUT_MSG' data structure is expanded to show a list of data elements: IN_LL, IN_ZZ, IN_TRCD, IN_CMD, IN_NAME1, IN_NAME2, IN_EXTN, and IN_ZIP. Under 'Output Messages', the 'OUTPUT_MSG' data structure is partially visible. To the right of the tree is a vertical toolbar with buttons: 'Import data structure...', 'Add...', 'Edit...', 'Copy', 'Paste', 'Remove', 'Move Up', and 'Move Down'.

IMS Transaction Unit Test Support

- You can then create a test case to script a dialog between a virtual client application and the transaction.
- You can specify the input message payload with human readable values at the field level. Explorer does the data conversion at invocation time.
- Test cases can be duplicated and changed in order to build up a test bucket to drive different code paths in the transaction.



Test Case Message Field Layout Editor

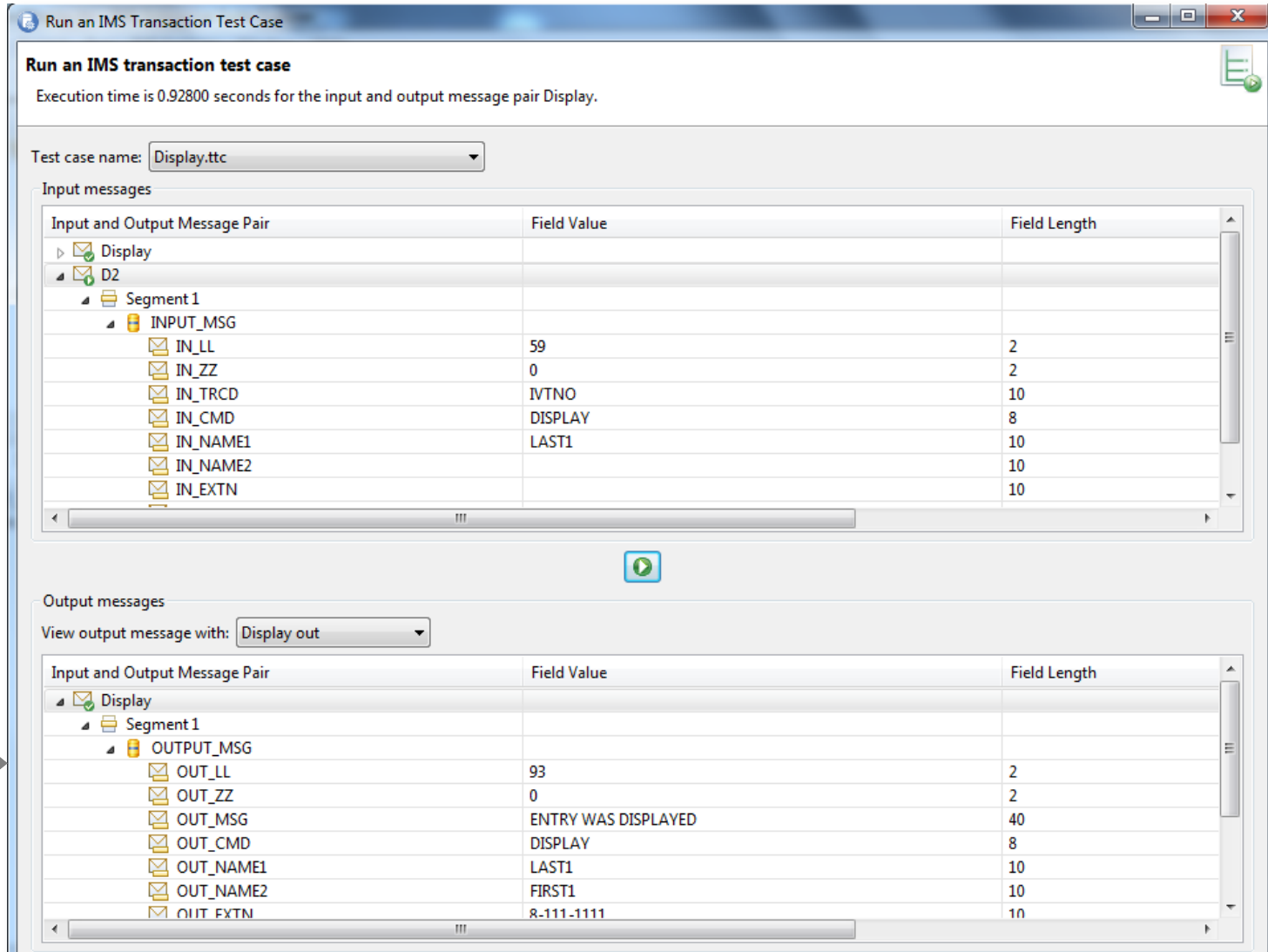
Enter a valid value for each field for the field data type, or import a binary file that predefines all of the values for the fields.

Input and Output Message Pair	Field Value
Input and Output Message Pair	
Display	
Display	
Segment 1	
INPUT_MSG	
IN_LL	59
IN_ZZ	0
IN_TRCD	IVTNO
IN_CMD	DISPLAY
IN_NAME1	LAST1
IN_NAME2	
IN_EXTN	
IN_ZIP	
Display out	
D2	
D3	

Buttons: Import Field Values..., Import Messages..., Add..., Edit..., Copy, Paste, Remove, Move Up, Move Down

IMS Transaction Unit Test Support

Use the runtime console to tweak input message field values, invoke the transaction, and inspect the output message.



The screenshot shows a software window titled "Run an IMS Transaction Test Case". The window displays the execution time as 0.92800 seconds for the input and output message pair "Display". The test case name is "Display.ttc".

Input messages

Input and Output Message Pair	Field Value	Field Length
Display		
D2		
Segment 1		
INPUT_MSG		
IN_LL	59	2
IN_ZZ	0	2
IN_TRCD	IVTNO	10
IN_CMD	DISPLAY	8
IN_NAME1	LAST1	10
IN_NAME2		10
IN_EXTN		10

Output messages

View output message with: Display out

Input and Output Message Pair	Field Value	Field Length
Display		
Segment 1		
OUTPUT_MSG		
OUT_LL	93	2
OUT_ZZ	0	2
OUT_MSG	ENTRY WAS DISPLAYED	40
OUT_CMD	DISPLAY	8
OUT_NAME1	LAST1	10
OUT_NAME2	FIRST1	10
OUT_EXTN	8-111-1111	10

Cross-product integration

- The IMS Explorer supports cross-product integration (shell-sharing) with the following products:
 - IBM® Rational® Developer for System z®
 - IBM Data Studio
 - IBM Problem Determination Tools Plug-ins for Eclipse
 - IBM Explorer for z/OS®
 - IBM CICS Explorer® Software Development Kit (SDK)
 - IBM Rational Team Concert™

Related topics at the Symposium

**Exploiting the IMS Catalog using
IMS Explorer for Development
- LAB**

D01

Mobile Feature Pack

Available Now!



IMS Mobile Business

- The IMS mobile strategy gives our customers a mobile foundation they can depend on
- Expand IMS ecosystem via delivery of mobile infrastructure
- **New:** *IMS Mobile Feature Pack*
 - Offer an integrated platform for full discovery, modeling, deployment and execution of both transaction and data assets for mobile consumption
 - REST interface with JSON wire protocol
 - A singular approach for System z clients using WAS, CICS, IMS and DB2



74% of CIOs say mobile solutions are part of their vision for increasing competitiveness

IMS Mobile Feature Pack ...

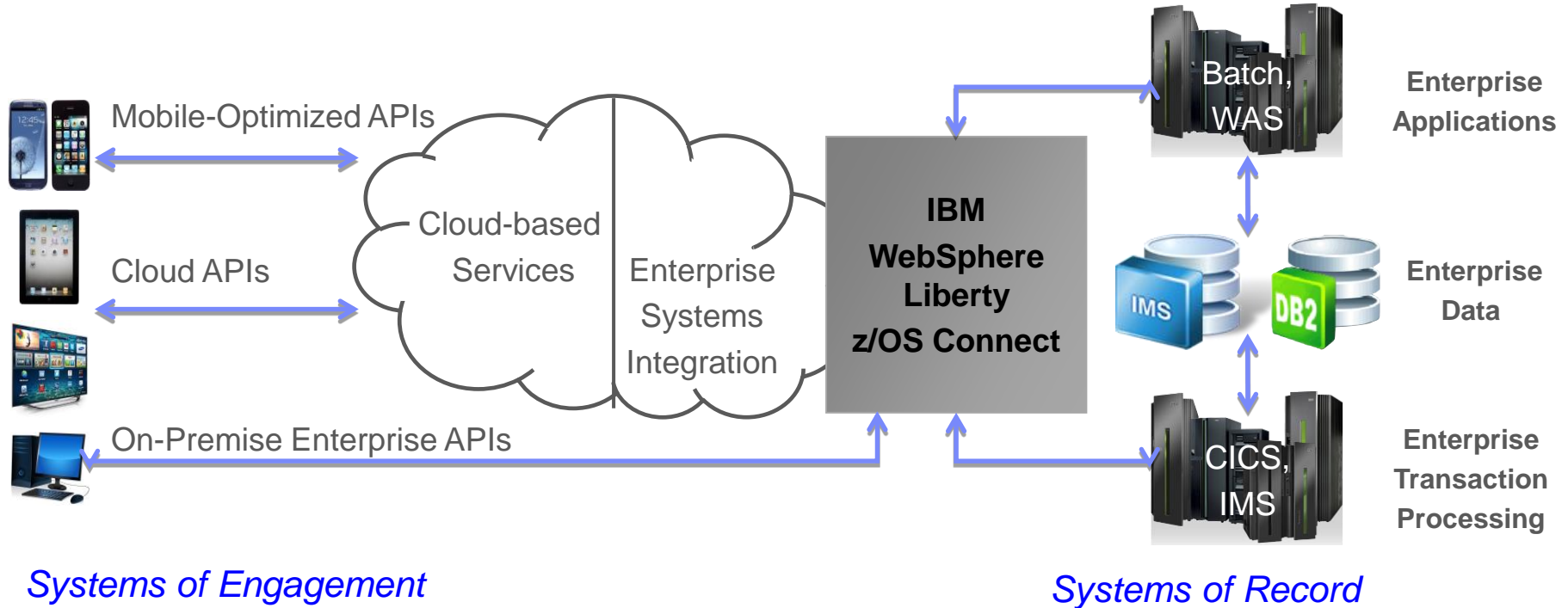
- Supports
 - Discovery of IMS assets
 - Modeling of asset metadata
 - Ability to publish those assets as RESTful services
- Once published, those services are hosted by IMS Mobile for discovery by mobile and cloud application developers
- Associated tooling is delivered via IMS Explorer for Development



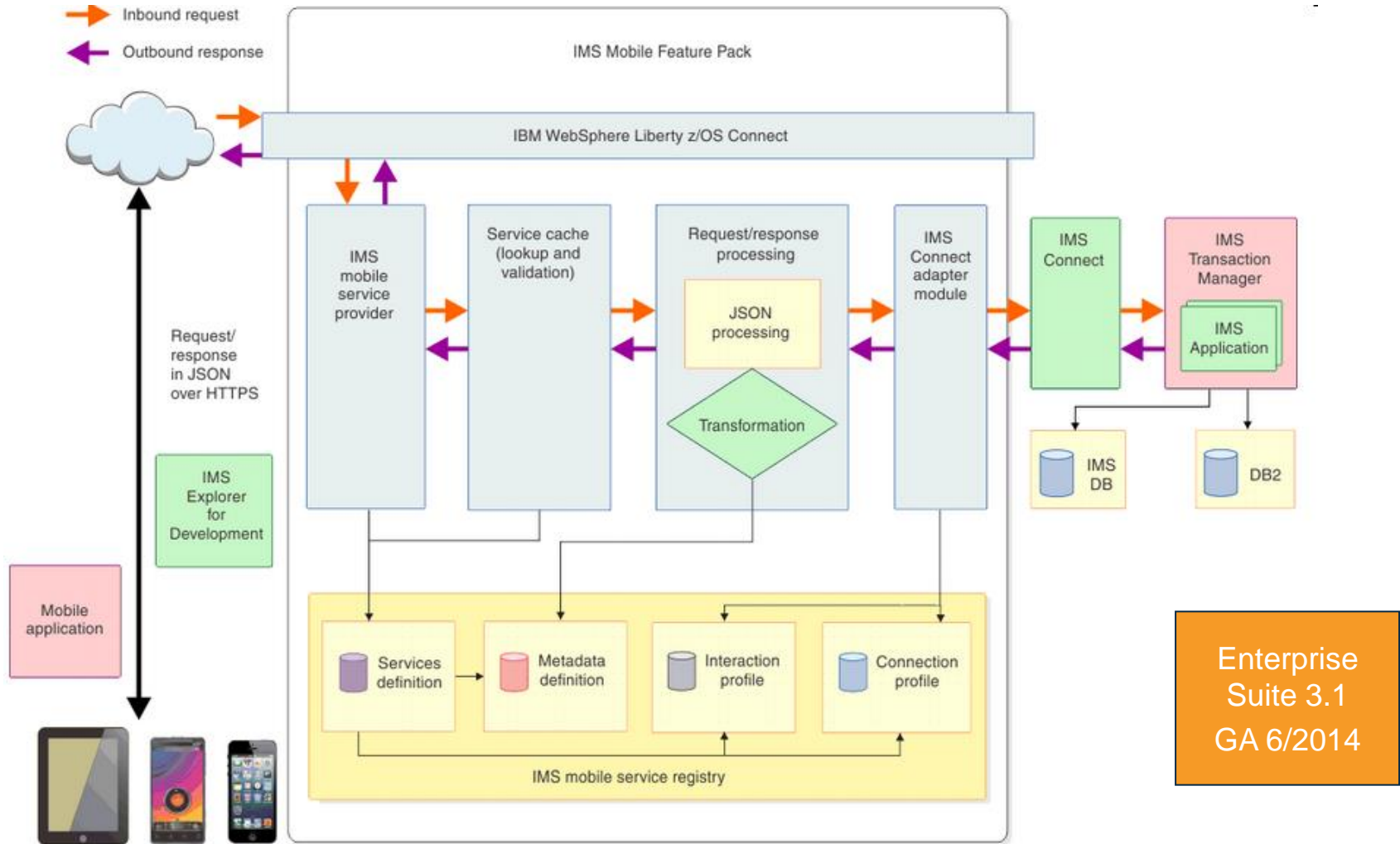
Secure and Consistent Enterprise Connectivity for Mobile and Cloud



- *IBM WebSphere Liberty z/OS Connect* – Shipped with WAS, CICS, and IMS
- *Unifies z/OS connectors* – a common solutions for mobile, cloud, and web
- *Simplified integration* – Hide complexity of connecting to z/OS using REST



IMS Mobile Feature Pack



Enterprise Suite 3.1
GA 6/2014

Enable mobile and cloud clients to access IMS transactions as REST/JSON services

IMS Explorer 3.1.1 Support

The screenshot displays the IMS Explorer 3.1.1 application window. The main window title is "IMS Mobile - Task Launcher - IMS Enterprise Suite Explorer". The menu bar includes File, Edit, Navigate, Search, Project, Run, Window, and Help. The toolbar contains various icons for file operations and navigation. The Quick Access bar shows "IMS Explorer", "Data", and "IMS Mobile". The Project Explorer on the left shows a tree view of "IMS Gateway Servers" with sub-items: "Nate's System", "IMS Connection profiles", "IMS interaction properties profiles", and "Services". Under "Services", several services are listed, including "IVTNO_manual" which is currently selected. The "IMS Transaction Navigator" at the bottom left shows "IMS Gateway Servers".

The "Edit an IMS Mobile Transaction Service" dialog box is open, titled "Edit an IMS Mobile Transaction Service". It contains the following fields and controls:

- *Service name:** IVTNO_manual
- *Service type:** REST
- Message metadata:**
 - *Transaction code:** IVTNO (with a "Browse..." button)
 - Message Type / Message Name table:**
- *Interaction properties:** PROPERTIES_manual
- Connection profiles table:**

Message Type	Message Name
INPUT	IVTNO - INPUT
OUTPUT	IVTNO - OUTPUT

Name	Host Name	Port Number	Use SSL for...
ec32005a_...	ec32005a.vmec.svl.ibm.com	9999	No

Buttons at the bottom of the dialog include: ? (Help), < Back, Next > (highlighted), Finish, and Cancel.

Cloud / Mobile topics at the Symposium

IMS Connect: Much more than a TCP/IP Gateway!

- IMS Connect as foundational to cloud and mobile alignment

1 **A02**

Evolving mobile systems of engagement in your enterprise

- Discussion of strategic mobile enablement options in IMS

2 **B02**

Mix it up: How your enterprise assets fit perfectly with Bluemix

- Covers publishing z assets as REST services in z/OS Connect all the way to Bluemix and using the secure gateway and API Management services to access the z services

3 **B14**

I got my REST API for z/OS Connect – Now What?

- Using the IBM MobileFirst platform to build a hybrid mobile application consuming REST/JSON services hosted on the z platform

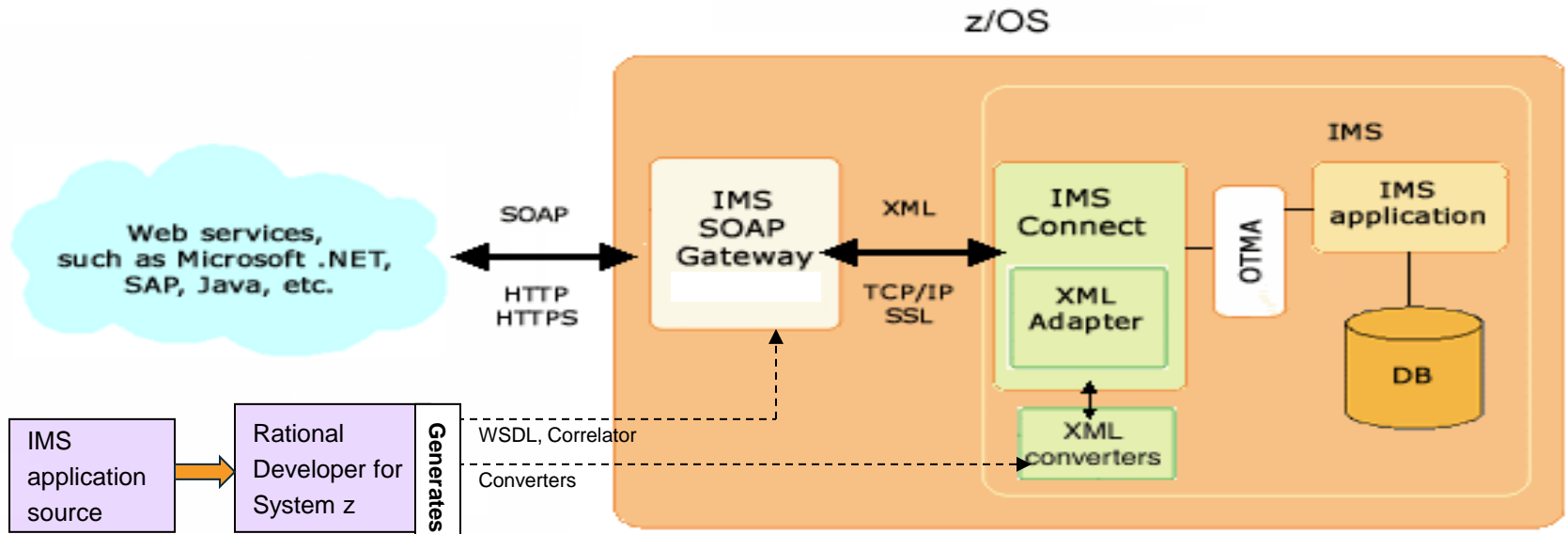
4 **A16**

IMS SOAP Gateway



IMS SOAP Gateway

- Direct web service solution
 - SOAP engine supporting industry web service standards
 - HTTP(S), SSL, SOAP 1.1, WSDL 1.1, WS-I BP 1.0, WS-Security with UNTP
 - Parse and transform XML messages in IMS Connect
 - Run on multiple platforms (z/OS, zLinux, AIX and Windows)
 - Recommended when Java EE server not used



ES 3.1 - SOAP Gateway

- **64-bit support for z/OS**
 - SOAP Gateway now runs on the z/OS platform in 64-bit mode, allowing organizations to take advantage of their 64-bit operating environment for extended memory usage.
- **Send-only with ACK support for synchronous callout**
 - Send-only with acknowledgement protocol support for synchronous callout allows SOAP Gateway to receive a final confirmation that the response message was delivered to the original IMS application that issued the callout request. This confirmation provides SOAP Gateway users additional information about whether a callout response message was sent to IMS and whether IMS received the message.

ES 3.1 - SOAP Gateway

- **SOAP Gateway management utility batch mode support**
 - Administrators can now use the batch mode of the management utility to facilitate web service deployment and server management for better performance and manageability
 - **iogmgmt** - batch command read file for execution as a batch in one JVM instance
- **Enhanced security cipher suite support**
 - SOAP Gateway is enhanced to use the FIPS 140-2 approved cryptographic provider(s); IBMJCEFIPS (certificate 376) and/or IBMJSSEFIPS (certificate 409) for cryptography.
 - SOAP Gateway also adds the support for Transport Layer Security (TLS) V1.2 and for cipher suites with key length of 2048 and key strength of 112 bit, as required by NIST SP800-131A.

WS-Security

- WS-Security SAML unsigned tokens for synchronous callout applications
 - Originating Userid (**PSTUSID**) for the IMS synchronous callout application is passed to the external web service for further authentication and authorization
 - **Benefit**
 - Provides message-level security for synchronous callout
- WS-Security enhancement for provider web services
 - support for Security Assertion Markup Language (SAML) 2.0 sender-vouches signed tokens
 - **Benefit**
 - Provides additional message integrity for service provider processing
 - Extends SOAP Gateway support of WS-Security standards

IMS ES 2.2 SOAP Gateway New Samples

- IMS Exchange web site updated
- Link on IMS Enterprise Suite SOAP Gateway web page

The screenshot displays the IBM developerWorks website, specifically the 'IMS Exchange' blog page. The browser's address bar shows the URL: <https://www.ibm.com/developerworks/mydeveloperworks/blogs/Ba337b1c-3c0c-48a5-b7cc-7f605884dbb9/?lang=en>. The page header includes the 'developerWorks' logo and navigation tabs for 'Technical topics', 'Evaluation software', 'Community', and 'Events'. A search bar is located in the top right corner.

The main content area is titled 'IMS Exchange' and shows a list of blog posts. The first post is 'New sample for IMS Enterprise Suite 2.1 SOAP Gateway custom authentication modules' by DavidHanson, dated Mar 26. The post text describes a sample that demonstrates the basics of the SOAP Gateway custom authentication module function for both SAML and UNTP security. It includes a link to the sample zip file: <https://www.ibm.com/developerworks/mydeveloperworks/groups/service/html/communityview?communityUId=Ba337b1c-3c0c-48a5-b7cc-7f605884dbb9#fullpag>. The post also mentions that the included code comments contain additional information and provides a link to the IMS Enterprise Suite 2.1 SOAP Gateway information center: http://publib.boulder.ibm.com/infocenter/dzichelp/v2r2/topic/com.ibm.ims.soap21.doc/gw_sec_provider_customa.htm.

The second post is 'A new example is available for IMS Enterprise Suite 2.1 SOAP Gateway; administrative script samples' by DavidHanson, dated Feb 1. The post text describes a sample that demonstrates how to perform basic administrative tasks for a SOAP Gateway server on z/OS. It includes a link to the sample zip file: <https://www.ibm.com/developerworks/mydeveloperworks/files/app/person/270002MTAW/file/bfc24e0d-afe3-4de0-8e0e-70b8927a766a>.

The third post is 'A new example for SOAP Gateway 2.1 is available; Top-down application development with Rational Developer for System Z' by DavidHanson, dated Nov 10 2011. The post text describes a sample that demonstrates the creation of a PLI application template using the top-down application development approach for IMS™ Enterprise Suite 2.1 SOAP Gateway. It includes a link to the sample zip file: <https://www-304.ibm.com/support/docview.wss?uid=swg27023375>.

The fourth post is 'A new SOAP Gateway 2.1 example is available; Getting started with synchronous callout' by DavidHanson, dated Nov 9 2011. The post text describes a sample that guides you through the steps to configure a basic synchronous callout request from IMS to an external web service and verify the response message received by IMS. It includes a link to the sample zip file: <https://www-304.ibm.com/support/docview.wss?uid=swg27023329>.

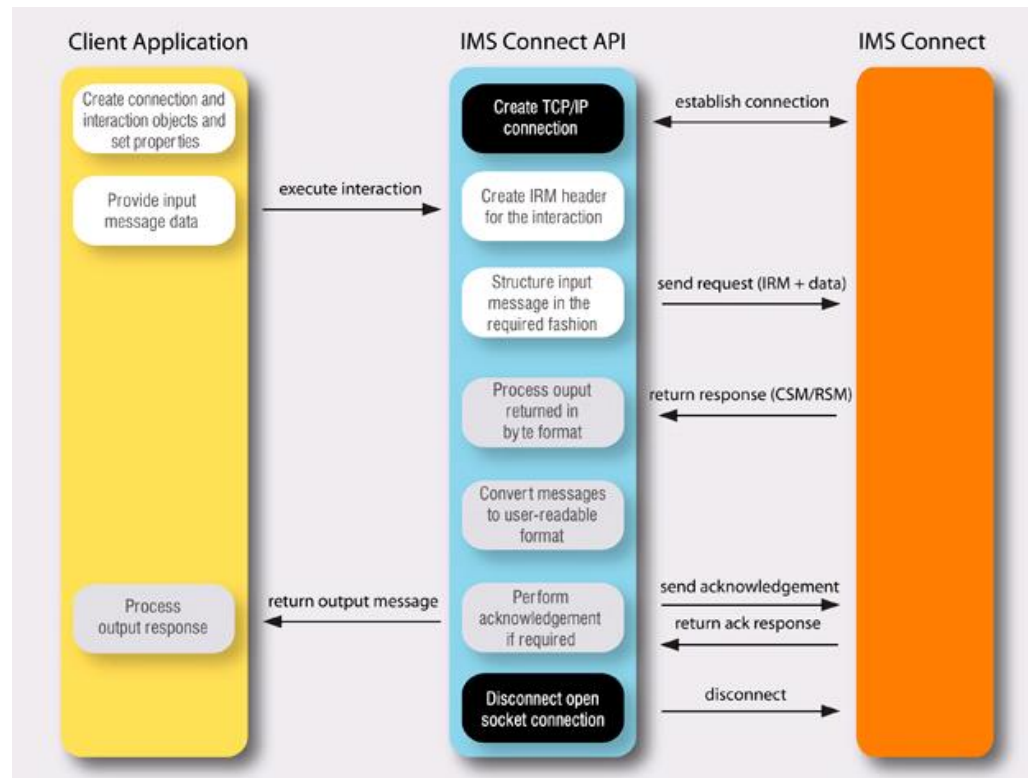
The right-hand sidebar contains a 'Join now' section with social media icons and a 'Similar Blogs' section listing other blogs such as 'EGL Blog', 'WebSphere and...', 'Asset Managem...', and 'ECM Community...'. The bottom of the page shows the 'Local intranet' icon and a 100% zoom level.

IMS Connect API



IMS Connect API for Java, C

- Provides simple, easy to use, light weight solution to build User-written IMS Connect client application to interact with IMS through IMS Connect using TCP/IP
- Used to invoke IMS transactions, OTMA supported IMS Commands, and IMS Connect supported commands
- Shields users from IMS Connect protocol, Message and header formats (IRM, CSM, RSM, etc.), and low-level socket communications



Performance data

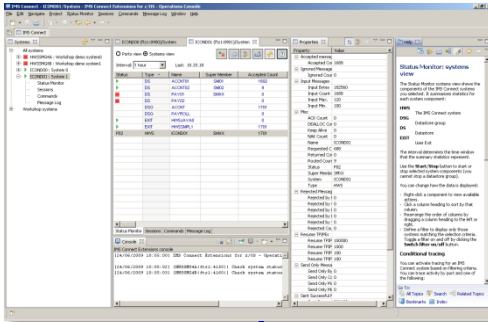
- For inbound, 16,000 transactions per second using V2R2 which is a 3% improvement over V2R1
- For callout, 11,000 transactions per second using V2R2 which is a 56% improvement over V2R1

IBM Management Console for IMS and DB2



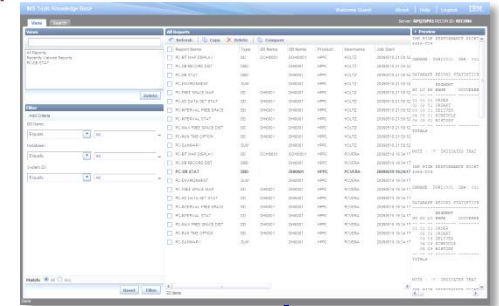
IMS User Interface

Explorer for Development (Eclipse)



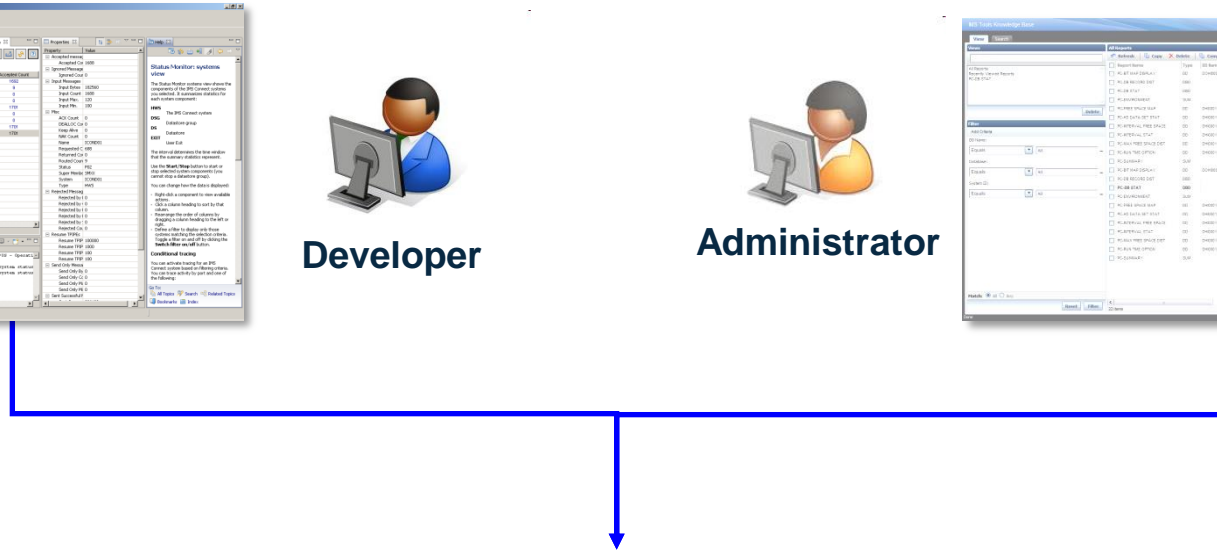
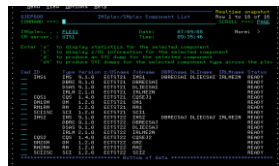
Developer

IBM Management Console for IMS and DB2 (Web Browser)



Administrator

• ISPF

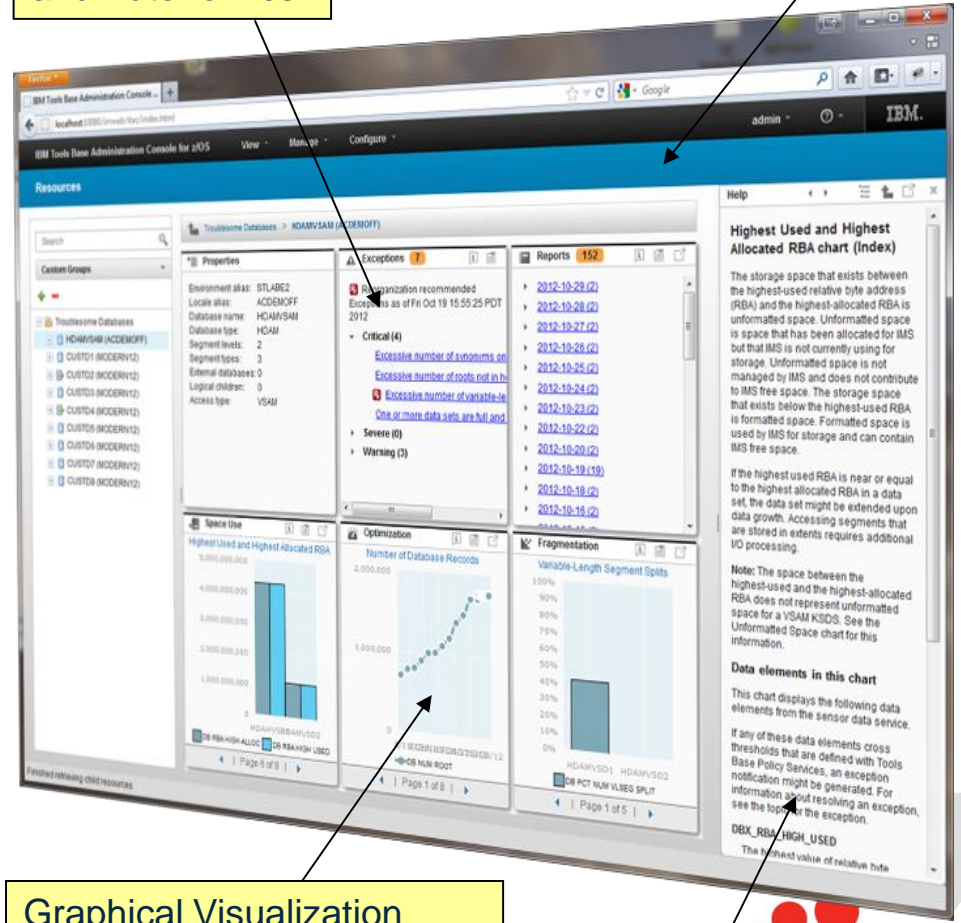


Management Console - Vision

- Provides a single, holistic easy-to-use web-based interface
- Consolidates information from various tools giving a more complete picture of IMS systems and databases
- Leverages the latest web technologies for a richer user experience
- Access from anywhere via the Internet using standard web browsers, with positioning to extend to mobile
- Integrates a context sensitive help system as a learning aid for new IMS DBAs and System Programmers
- Dramatically changes the appearance and impression of our mainframe tools
- Continue to extend integration to all our Tools...including Vendor Tools and DB2

Database Health and Autonomics

IBM OneUI Theme



Graphical Visualization of data not possible in ISPF

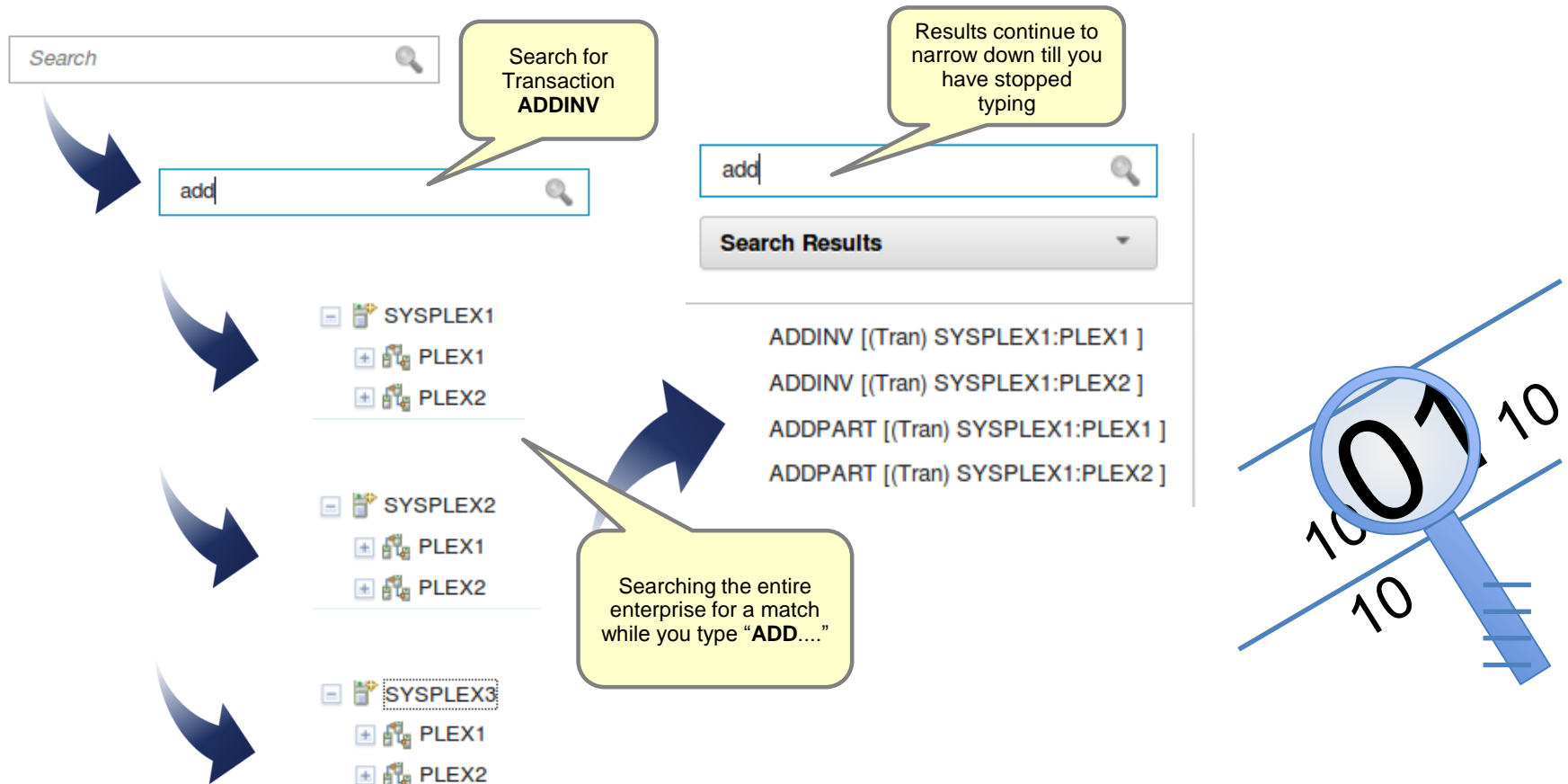
Integrated Help

IMS Functionality

- Enterprise System View
 - IMS Resource and IMSplex discovery
 - Hierarchical representation starting from the SYSPLEX to the IMS Resources
- Enterprise Search
 - Search across the entire enterprise on any type of resource
- Visual Status
 - Quickly see the status of any IMS Resource with colored status icons
 - Hover and click status icons for reason codes and corrective actions
 - Filter IMS Resources
- Manage IMS Resources
 - Start/Stop and update IMS Resource Attributes
 - Multi select IMS Resources to manage and update
- Resource Relationships
 - View relationships between IMS Resources
 - At a glance understand why a transaction is having a problem
- Customize
 - Change the column attribute defaults

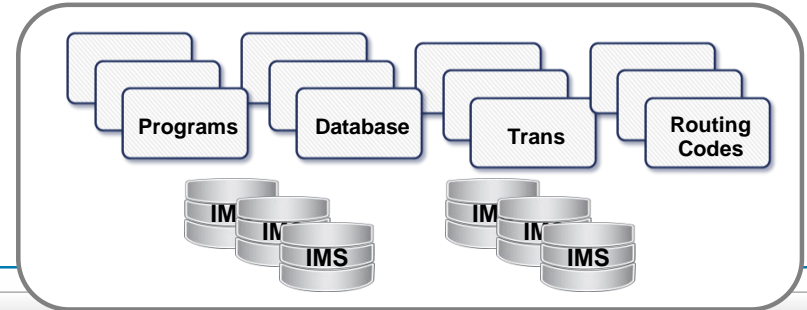
Search and discover the enterprise

- Search for any resource that has been configured or discovered
 - Resources include IMS Transactions, Databases, Programs and Routing Codes
 - Search result types are identified by keyword
 - Instantly view the found resource and drill further into the resource



Resource relationship

- At a glance see how resources are related
- Relationships between resources in one view
- Quickly diagnose problems between resources



Search

Enterprise View

SYSPLEX1 > PLEX1 > IMS1 > Transactions > EMHTX2

Transaction: EMHTX2

IMS Attribute	Value
Transaction Code	EMHTX2
Status	✓
Commit Mode	SNGL
Fast Path	E
Class	1
Conversational	N
Message Queue Count	0
Limit Count	0
PSB	EMHPSB2
Member	IMS1
AOI Command Support	N

Related Program

IMS Attribute	Value
PGM Name	EMHPSB2
Status	✓
BMP Type	N
Dynamic Option	N
Definition Type	MODBLKS
Region type	IFP
Member	IMS1
Fast Path	E
Local Scheduled Type	PARALLEL
Completion Code	0
Generated PSB	N

Related Routing Code

IMS Attribute	Value
Routing Code	EMHTX2
Status	...
Program	EMHPSB2
Inquiry	N
Last Access Time	
Time Created	2013.105 10:31:46.86
Definition Type	MODBLKS
Last Import Time	
Completion Code	0
Last Update Time	
Member	IMS1

Related Databases

Database Name	Database Type	Status	Access Type	Resident	Member	Definition Type	Last Access Time	Area Name	Last Imported Time	Completion Code	Time Created	Last Updated Time
MSDBLM01	MSNR	✓	EXCL	Y	IMS1	MODBLKS				0	2013.105 10:31:45.67	
MSDBLM02	MSNR	✓	EXCL	Y	IMS1	MODBLKS				0	2013.105 10:31:45.67	
MSDBLM03	MSNR	✓	EXCL	Y	IMS1	MODBLKS				0	2013.105 10:31:45.67	
MSDBLM04	MSNR	✓	EXCL	Y	IMS1	MODBLKS				0	2013.105 10:31:45.67	

SYSPLEX1

PLEX1

HWS1

IMS2

Transactions

Programs

Routing Codes

Databases

HWS2

IMS1

Transactions

Programs

Routing Codes

Databases

PLEX2

HWS1

HWS3

IMS3

Transactions

Programs

Routing Codes

Databases

Manage IMS Visually

IBM Tools Base Administration Console for z/OS

Resources

Enterprise Search

Customize

Manage Resources

Visual Status

Select Resources

Enterprise View

Transaction Code	Status	Commit Mode	Conversational	Fast Path	Region Class	Limit Count	Message Queue Count	IMSplex Member Name	Associated Program Name
<input type="checkbox"/> 3270S	Warning	MULT	N	N	1	65535	0	IMS1	A3270
<input type="checkbox"/> A1111111	Warning	SNGL	Y	N	1	65535	0	IMS1	A11APP
<input type="checkbox"/> A3270	Warning	MULT			1	65535	0	IMS1	A3270
<input type="checkbox"/> ADDINV	Critical	MULT	N	N	4	2	0	IMS1	DFSSAM04
<input type="checkbox"/> ADDPART	Normal	MULT	N	N	4	2	0	IMS1	DFSSAM04
<input type="checkbox"/> AOBMP	Critical	SNGL	N	N	23	65535	0	IMS1	TS2IACB0
<input type="checkbox"/> AOP	Normal	SNGL	N	N					
<input type="checkbox"/> AP11	Normal								
<input type="checkbox"/> AP14	Normal	MULT	N	N					
<input type="checkbox"/> AP17	Normal	MULT	N	N					
<input type="checkbox"/> APOL11	Normal	MULT	N	N					
<input type="checkbox"/> APOL12	Normal	MULT	N	N					

- View the enterprise hierarchy
 - Simplex > IMSplex > IMSplex Members
- Start and stop IMS Resources
 - Transactions, Programs, Routing Codes, Databases
 - Multi select resources to command
- At-a-glance view IMS resource status icons
 - Hover icons for reason codes and corrective actions
- Filter displayed results by attributes, name, status

IMS Command Console

The screenshot displays the IMS Command Console interface. On the left is a navigation tree under 'Resources' with 'Enterprise View' selected. The main area shows a breadcrumb path 'TEST > PLEX1 > Command Console'. The command input field contains 'EXPORT DEFN TARGET(RDDS) RDDSDSN(IMSTESTL.DD.RDDS) OPTION(ALLRSP)'. Below this, the 'Sysplex' is set to 'TEST' and 'IMSplex' to 'PLEX1'. The 'Route' dropdown is set to '(* Route All' and highlighted with a yellow box. A 'Submit' button is to the right. The results section shows a table of database resources with columns NAME, TYPE, MBR, and CC. A yellow box labeled 'History of commands' points to the command input area. Another yellow box labeled 'Toggle result as text or a grid' points to the 'View Text' button. At the bottom, there is a 'Message' section and buttons for 'View Grid', 'View Text', and 'Print Result'. A status bar at the very bottom reads 'Finished retrieving child resources'.

Resources

Search

Enterprise View

SYSPLEX1

- PLEX1
- PLEX2
 - HWS3
 - HWS1
 - IMS3
- SYSPLEX2
 - PLEX1
 - IMS1
 - IMSPLEX1
- SYSPLEX3
- TEST
 - PLEX1
 - IMSPLEX1
 - IMS1

TEST > PLEX1 > Command Console

* IMS Command: EXPORT DEFN TARGET(RDDS) RDDSDSN(IMSTESTL.DD.RDDS) OPTION(ALLRSP)

* Sysplex: TEST * IMSplex: PLEX1 Route: (* Route All Submit

EXPORT D... x

Results: EXPORT DEFN TARGET(RDDS) RDDSDSN(IMSTESTL.DD.RDDS) OPTION(ALLRSP)...

NAME	TYPE	MBR	CC
ARTDB	DB	IMS1	0
AUTODB	DB	IMS1	0
AUTODBH	DB	IMS1	0
BANKATMS	DB	IMS1	0
BANKFNCL	DB	IMS1	0
BANKLDGR	DB	IMS1	0
BANKTERM	DB	IMS1	0
BE2PCUST	DB	IMS1	0
BE3ORDER	DB	IMS1	0
BE3ORDRX	DB	IMS1	0
BE3PARTS	DB	IMS1	0
BE3PSID1	DB	IMS1	0
BIBDBD	DB	IMS1	0
BIBIDBD	DB	IMS1	0
CACBKDB1	DB	IMS1	0
CACBKDB2	DB	IMS1	0
CDCCUSD	DB	IMS1	0
CDCCUSX	DB	IMS1	0
CDCPROD	DB	IMS1	0
CDCPROI	DB	IMS1	0
CDCTEMP	DB	IMS1	0
CELDCUST	DB	IMS1	0
CELDCUSX	DB	IMS1	0
CELDEXTR	DB	IMS1	0
CELDETX	DB	IMS1	0
CELDORDR	DB	IMS1	0
CELDORDX	DB	IMS1	0
CELDPROD	DB	IMS1	0
CELDPROX	DB	IMS1	0
CNCATDB	DB	IMS1	0
CUSTACC	DB	IMS1	0

Message

View Grid View Text Print Result

Finished retrieving child resources

Prerequisites

- Software requirements

- IBM Management Console for IMS and DB2 for z/OS v 1.1 (5655-TAC)
- IMS Version 12 or 13
 - IMS Connect
 - IMS SCI
 - IMS OM
- Web browser
 - Firefox ESR 17 and 24
- z/OS (1.11, 1.12, 1.13, 2.1)
 - IBM Installation Manager for z/OS V01a.06.02 or higher
 - included in Tools Base or downloaded as archive
- Windows 7 (32-bit) or Windows 7 (64-bit)
 - IBM Installation Manager V01a.06.02 or higher
 - downloadable as a self installable executable

Related topics at the Symposium

**IBM Management Console:
Gain Insight into Your Enterprise**

B04

**The IBM Management Console
For IMS and DB2 for z/OS
Supporting autonomies**

D03

Thank you!

Your feedback is important to us!

