

Improving the IMS DBA and system programmer experience with a web browser interface

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Agenda

Web browser interface vs ISPF

No charge functions in web browser interface

Additional functions with IBM IMS Tools

Making IMS systems visible in web browser

User interfaces: Web browser vs ISPF

A web browser user interface to some IMS and IMS Tools functions:

IMS Administration Foundation Videos

Target users or personas

- Database administrators
- System programmers and administrators
- Will continue to evolve to support these users
- **ISPF-based products will also continue to be enhanced**

What about IMS Explorer for Development?

- Target user or persona is application developer
- Will continue to evolve to support application developer requirements

Zowe-based

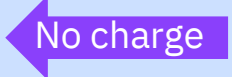
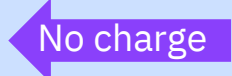
Shared infrastructure with other IBM and non-IBM products

Graphical user interface

No requirement to install code on your workstation or laptop

IBM carbon design

The UI: IBM Unified Experience for z/OS

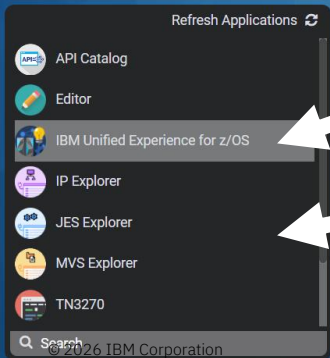
- Zowe desktop application
 - Zowe desktop is a web browser interface
- Single integrated user interface for IMS and Db2
- Currently supports these products and components:
 - IBM Db2 Administration Foundation 
 - IBM Db2 DevOps Experience
 - **IBM IMS Administration Foundation** 
- Functions activated based on products installed
- Supports Multi-Factor Authentication (MFA)

Zowe desktop (in a web browser)

Sign in with TSO user ID and password. All access to IMS and z/OS are controlled by this ID's authority.

This is where IMS Admin Foundation, Db2 Admin Foundation and Db2 DevOps Experience are found

Multiple Zowe desktop applications here, such as MVS Explorer, JES Explorer



Packaging and delivery

IMS Tools Base for z/OS

Existing no-charge product

Must be ordered and entitled on Shopz like other z/OS software

Traditionally contains

- Infrastructure components for IBM IMS Tools database related solution packs
- IMS Hardware Data Compression Extended
- Batch utility to report and delete RM resource structures

V1.7

New component added for web browser interface:
IMS Administration Foundation for z/OS

V1.6 out of support: March 2024

IBM IMS Tools Base V1.7 – Related components

Db2 Administration Foundation for z/OS (5698-ADF)

Db2 DevOps Experience for z/OS (5698-DEX)

New FMID HAFN170
IMS Administration Foundation for z/OS
PTF UI99026

Existing FMID updated to HAHN170

- IMS Tools Knowledge Base
- Policy Services
- Distributed Access Infrastructure
- Autonomics Director

IMS Tools Base for z/OS V1.7 (5655-V93)
\$0 License, \$0 S&S

IBM Unified Management Server for z/OS
(5698-UM1) \$0 License, \$0 S&S

- V1.2.0.10 (PTF U002772) recommended
- [Software requirements](#)

Zowe

\$0 License, S&S is no-cost when used only with
IBM products

- Zowe V2.18.1 or later
- IBM Z Distribution of Zowe V2 (5698-ZWG)
with PTFs U090074 and U090075, or later

www.ibm.com/support/pacges/fix-list-ibm-z-distribution-zowe

▭ Required for IMS and IMS Tools web UI

▭ Related products sharing the user interface

[White paper specific to installation
of IMS Administration Foundation](#)

RESTful APIs

All functions visible in the web UI are also accessible via REST APIs

Refer to Swagger documents included in the product install

Administration functions included at no charge

IMS SQL processor

SQL query and favorites for catalog

IMS type-1 and type-2 commands

Refresh capability in all views

IMSplex properties and components

IMS properties and components

IMS Connect properties, related client connections, and OTMA and ODBM datastores

ODBM server properties and status

Properties and status of IMS resources

- Programs and PSBs: related databases, routing codes and transactions
- Routing codes: related programs
- Transactions: related databases, programs and routing codes
- Databases and DBDs: related programs

Exploring IMS components to understand your IMS system

Understanding your IMS system

IMSpIex properties and components

- Members of the plex
- Number of databases, programs, routing codes, transactions, DBDs and PSBs

List of databases, programs, transactions, routing codes, DBDs and PSBs

- Filtering to find the items you want to see
- Includes key characteristics of each item

Exploring IMS components – viewing an IMSplex

BLFQ8 IMSplex

Drill down on any resource type

Overview Online resources DBDs and PSBs Command

Online resources

Databases	154	Programs	214	Routing codes	14	Transactions	136
-----------	-----	----------	-----	---------------	----	--------------	-----

DBDs and PSBs

DBDs	83	PSBs	110
------	----	------	-----

IMSplex members (17)

Data sharing groups (1)

New in June 2025

Filter table

Data sharing group	Status	IMS catalog	IMS-managed ACBs	Catalog alias	
IFQ8 DSGROUP	Ready	Yes	Yes	DFSC	Go to catalog query

DBRC group ID		IMS catalog directory HLQ	IMSQA.IMS.IFQ8.IMSCATDS.DFSCD000
IRLM XCF group name	IFQ8DSA	IMS Tools KB server	FPQNWT31
RECON1 data set	IMSQA.IMS.IFQ8.RECON1	RECON ID	IFQ8RCNS
RECON2 data set	IMSQA.IMS.IFQ8.RECON2	Data sharing members	IFQ8, IFQ9
RECON3 data set	IMSQA.IMS.IFQ8.RECON3		

Exploring IMS components – view a **list of databases**

BLFA1 IMSplex

Overview **Online resources** DBDs and PSBs Command

Databases (1911) Programs (1125) Routing codes (3) Transactions (61)

Databases ⓘ

🔍 *db* x 🔄 🗑️

Apply a filter


Name	Status	Subsystem ID	Database type	Access type
ACCUNTDB	✔ NOTOPEN	IFA1	DL/I	UPD
AUTODB	✔ NOTOPEN	IFA1	DL/I	UPD
COMPOSDB	✔ NOTOPEN	IFA1	DL/I	UPD
CPYBDBD1	✔ NOTOPEN	IFA1	DL/I	UPD
CPYBDBD2	❌ NOTINIT-1E-NODMB,NOTOPEN	IFA1		UPD

Exploring IMS components – view a **specific database**

AUTODB HDAM DBD **DB**

Overview Properties Cross reference Command

Database status


 NOTOPEN

Subsystem ID IFA1
IMSplex BLFA1

[Details](#)

Related programs

1

 Normal	1
--	---

[Details](#)

Exploring IMS components – view a [list of DBDs](#)

BLFA1 IMSplex

Overview Online resources **DBDs and PSBs** Command

DBDs (423) PSBs (277)

Filter table

Apply a filter

Name	Data sharing group	Database type	Access method	Timestamp	IMS version
ACCUNTDA	IFA1 DSGROUP	HDAM	OSAM	2020-02-25 08:38:54.14	15
ACCUNTD	IFA1 DSGROUP	HDAM	OSAM	2020-02-25 08:38:54.14	15
AUTOD	IFA1 DSGROUP	HDAM	OSAM	2020-02-25 08:38:54.14	15
AUTOLDB	IFA1 DSGROUP	LOGICAL		2019-11-06 15:29:00.00	15
BPL00	IFA1 DSGROUP	HIDAM	VSAM	2020-02-25 08:38:54.14	15

Exploring IMS components – view a **specific DBD**

AUTODB

HDAM

DBD

DB



Overview

Properties

DBD map

Cross reference

Statistics

Reports

Exceptions

DBD properties

Name	AUTODB
Data sharing group	IFA1 DSGROUP
RECON ID	IFA1RCNS
Database type	HDAM

[Details](#)

Exceptions



Not registered in the monitor list

[Details](#)

Reports



No reports available

[Details](#)

Related PSBs

1

AUTPSBAL

[Details](#)

Related logical DBDs

2

AUTOLDB
EMPLDB2

[Details](#)

Related physical DBDs

1

EMPDB2

[Details](#)

Index DBDs

2

SINDEX11
SINDEX22

[Details](#)

Exploring IMS components – view a specific DBD's properties

AUTODB

HDAM

DBD

DB

Overview

Properties

DBD map

Cross reference

Statistics

Reports

Exceptions

DBD properties

Name	AUTODB
Data sharing group	IFQ8 DSGROUP
RECON ID	IFQ8RCNS
Database type	HDAM
Access method	OSAM
DBD version	0
Timestamp	2025-05-28 03:05:20.78 (2514803052078)
IMS version	15
DB groups	
Recovery group	

Instances in IMS catalog

DBD version	Timestamp	Status
0	2518204454542	Pending
0	2514803052078	Active
0	2210903185941	

Data sets

Filter table

DD name	Data set name	DBDS groups	CA group
DFSDLR	IMSQA.NIMS.IFQ8.DFSDLR	GDSAUTDB	

Exploring IMS components – view a **list of programs**

Dashboard / BLFA1

BLFA1 IMSplex

Overview **Online resources** DBDs and PSBs Command

Databases (1911) **Programs (1125)** Routing codes (3) Transactions (61)

Programs ⓘ

Apply a filter

Q *db*

Name	Status	Subsystem ID	Region type	BMP type	Fast Path	Dynamic	Generated PSB	Language interface	Schedule type
ACPYBDB1	✓ Normal	IFA1	BMP	Y	N	N	N		PARALLEL
ACPYBDB2	ⓘ NOTINIT-40-NOPSB	IFA1	BMP	Y	N	N	N		PARALLEL
ACPYBDB3	ⓘ NOTINIT-40-NOPSB	IFA1	BMP	Y	N	N	N		PARALLEL

Exploring IMS components – view a **specific program**

[Dashboard](#) / [BLFA1](#) / [IFA1 DSGROUP](#) / [IFA1](#) / [AUTPSB11](#)

Breadcrumbs

AUTPSB11

PSB

PGM

Overview

Properties

Cross reference

Command

Program status

 Normal

Subsystem ID [IFA1](#)

IMSplex [BLFA1](#)

[Details](#)

Related routing codes



No routing codes associated with this program

[Details](#)

Related transactions

2


 Normal 2 (Global 0)

 Unknown 0 (Global 0)

[Details](#)

Related IMS physical databases

4

 Normal 4

[Details](#)

Exploring IMS components – view a **specific PSB**

Similar interfaces for PSBs, transactions, routing codes

AUTPSB11

PSB PGM

Overview Properties PCB list PSB map Cross reference

PSB properties

Name	AUTPSB11
Data sharing group	BLFQ8 (MACB)
Compiler language	Java
Total PCBs	5
Number of DB PCBs	5
Number of TP PCBs	0
Number of GSAM PCBs	0
Timestamp	2022-04-19 03:05:58.89 (2210903055889)
IMS version	15

Instances in IMS catalog

Timestamp	Total PCBs	Status
2518204454542	5	Pending
2210903055889	5	Active

Exploring IMS components – view **IMS Connect** information

IFA1HWS IMS Connect



- Overview**
- Properties
- Related information
- Command

Properties

Member name	IFA1HWS
Status	✓ ACTIVE
IMSplex	BLFA1
Job name	IFA1HWS

[Details](#)

Related OTMA data stores

1
✓ Normal 1

[Details](#)

Related ports

2
✓ Normal 2

[Details](#)

Related IMSplexes

1
✓ Normal 1

Related ODBMs

1
✓ Normal 1

Related remote IMS Connects

No resources found

Exploring IMS components – view **Open Database** information

IFA10D Open database manager



Overview Properties Related information Command

ODBM server properties

Member name	IFA10D
Status	✓ READY,ACTIVE
IMSplex	BLFA1
Job name	IFA10DBM

[Details](#)

Data stores

1	
✓ Normal	1

[Details](#)

Aliases

1	
✓ Normal	1

[Details](#)

Clients

1	
IFA1HWS	

Threads

No threads

Traces

1	
⚠ Caution	1

Interacting with your IMS systems

Issuing IMS SQL

Select a Connection **3**



IBM Unified Experience for z/OS

Dashboard / SQL

SQL

Enter PSB name **4**

Write a new statement or select a statement from Recent statements **5**

Subsystem type

IMS

Data sharing group

IFQ3 DSGROUP

Connection

IFQ3 (IFQ3)

New SQL statements

Recent statements

PSB name

DFSIVP37

Select IMS or Db2 **1**

Select a Data Sharing Group **2**

```
1 -- Insert a new record in the phonebook database
2 SELECT * FROM PHONEAP.PHONEBOOK;
3 INSERT INTO PHONEAP.PHONEBOOK (LASTNAME, FIRSTNAME, EXTENSION, ZIPCODE) VALUES ('MyLast', 'MyFirst', '9-222-1111', 'D11/R0');
4 SELECT * FROM PHONEAP.PHONEBOOK;
5
```

Run

IMS SQL results

Switch result set

PSB name	DFSIVP37	
Statement	INSERT INTO PHONEAP.PHONEBOOK (LASTNAME, FIRSTNAME, EXTENSION, ZIPCODE) VALUES ('MyLast', 'MyFirst', '9-222-1111', 'D11/R0')	Result set 2
Results	SQL QUERY RAN SUCCESSFULLY, SQL CODE IS 0, SQL STATE IS 00000, 1 ROW(S) AFFECTED	▼
PSB name	DFSIVP37	
Query	SELECT * FROM PHONEAP.PHONEBOOK	Result set 3
Results	SQL QUERY RAN SUCCESSFULLY, SQL CODE IS 0, SQL STATE IS 00000	▼

	LASTNAME	FIRSTNAME	EXTENSION	ZIPCODE
1	LAST6	FIRST6	8-111-6666	D03/R0
2	LAST1	FIRST1	8-111-1111	D01/R0
3	MyLast	MyFirst	9-222-1111	D11/R0
4	LAST2	FIRST2	8-111-2222	D01/R0
5	LAST3	FIRST3	8-111-3333	D01/R0
6	LAST5	FIRST5	8-111-5555	D02/R0

Query results are displayed in table format

Making the IMS catalog your asset: IMS SQL for catalog

Favorites | Recent | SQL statements | Manage samples | Collapse ^

Choose samples to import and save as favorites

Import

All visibility types Filter table

Name	Description	Visibility	
PSB instance list	Category: PSB general; Description: List all PSB instances with active, pending, and ins...	Private	▶ SQL ✎ 🗑️
PSB parameters	Category: PSB general; Description: List PSB instances and their PSB parameters; Vers...	Private	▶ SQL ✎ 🗑️
DBD instance list	Category: DBD general; Description: List all DBD instances with active, pending, and in...	Private	▶ SQL ✎ 🗑️
DBD instances with ACCESS	Category: DBD general; Description: List all DBD instances with active, pending, a		
HDAM randomizer information	Category: Randomizer; Description: Show HDAM and PHDAM DBDs with randomiz		
Logical child DBDs	Category: Logical relationships; Description: List all DBDs that have logical child s		
SEGM edit or comp routines	Category: DB exit routines; Description: Show all DBDs and their segments for which s...	Private	▶ SQL ✎ 🗑️
PSBs with DB PCBs	Category: PSB general; Description: Show PSBs that have DB PCBs and their PCB para...	Private	▶ SQL ✎ 🗑️

▶ SQL ✎ 🗑️

Run, load, edit, or delete the favorite

Status
SQL query ran successfully, SQL code is 0, SQL state is 00000. [Show details](#)

UMS: APAR PH63849
IMS Tools Base: APAR PH63761

Filter table

PSB	PACTTS	PPNDTS	TSVERS
AUTPHONE	2210903185941	0000000000000	2210903185941
AUTPSBAL	2210903055889	0000000000000	2210903055889
AUTPSBEL	2210903055889	0000000000000	2210903055889
AUTPSB11	2210903055889	0000000000000	2210903055889

IMS SQL for catalog - samples

Import sample SQL statements

You can import one or more SQL statements to your favorites list from the following list of system-provided samples.

Search for samples to import based on name or description

Filter table

<input type="checkbox"/>	Name	Description
<input checked="" type="checkbox"/>	DBD instance list	Category: DBD general; Description: List all DBD instances with active, pending, and instance timestamps; Version: 1.0
<input checked="" type="checkbox"/>	DBD instances with ACCESS	Category: DBD general; Description: List all DBD instances with active, pending, and instance timestamps and also with DBD AC...
<input type="checkbox"/>	DBD major parameters	Category: DBD general; Description: List all DBD instances with major parameters; Version: 1.0
<input checked="" type="checkbox"/>	HDAM randomizer information	Category: Randomizer; Description: Show HDAM and PHDAM DBDs with randomizing routine names and parameters; Version: 1.0
<input type="checkbox"/>	DBs with secondary indexes	Category: Secondary indexes; Description: List all DBDs of full-function databases that have secondary indexes; Version: 1.0
<input checked="" type="checkbox"/>	Logical child DBDs	Category: Logical relationships; Description: List all DBDs that have logical child segments; Version: 1.0
<input type="checkbox"/>	Logical child segments	Category: Logical relationships; Description: List all logical child segments with DBD names; Version: 1.0
<input type="checkbox"/>	Logical parent DBDs	Category: Logical relationships; Description: List all DBDs that have logical parent segments; Version: 1.0
<input type="checkbox"/>	Logical parent segments	Category: Logical relationships; Description: List all logical parent segments with DBD names; Version: 1.0
<input checked="" type="checkbox"/>	SEGM edit or comp routines	Category: DB exit routines; Description: Show all DBDs and their segments for which segment edit/compression routines are us...

Items per page: 10

1-10 of 25 items

1 of 3 pages

Cancel

Import

IMS SQL for catalog – edit a favorite or create new

Favorites

Recent

SQL statements

Manage samples

Collapse ^

PSB name

Data sharing group

ODBM data store alias

Saved SQL statements name

DFSCP000

IFQ8 DSGROUP

IFQ8

PSB instance list

Load favorite

```
1 -- List all PSB instances with active, pending, and instance timestamps:
2 SELECT H.IMSNAME AS PSB, PACTTS, PPNPTS, PSB.TSVERS
3 FROM DFSCAT00.HEADER AS H, PSB
4 WHERE H.TYPE='PSB'
5 FETCH FIRST 20 ROWS ONLY;
6
```

Options for saving,
translating to DL/I, or running

Clear all

Save

Save as

Translate to DL/I calls

Run

IMS SQL for catalog – save a favorite

Save as private or shared

Update SQL statements

You can optionally update the name, description, and data sharing group before saving the updated statements. If you are an administrator, you can change the visibility scope.

Name 28 / 32
PSB instance list (first 20)

Description (optional) 118 / 200
Category: PSB general;
Description: List all PSB instances with active, pending, and instance timestamps;
Version: 1.0

Visibility
 Private Public (Shared with anyone)

Data sharing group (Any) ODBM data store alias (Any) PSB name DFSCP000

SQL statements

```
1 -- List all PSB instances with active, pending, and instance timestamps:
2 SELECT H.IMSNAME AS PSB, PACTTS, PPNPTS, PSB.TSVERS
3 FROM DFSCAT00.HEADER AS H, PSB
4 WHERE H.TYPE='PSB'
5 FETCH FIRST 20 ROWS ONLY;
```

Created 2024-11-04 15:01:29 Created by TSNIMSG

Cancel Update

IMS SQL for catalog – keeping 10 recent statements

Favorites

Recent

SQL statements

Collapse ^

Most recent statements
for your user ID

Q Filter table

Statements

SELECT H.IMSNAME AS DBD, H.PACTTS, H.PPNDTS, DBD.TSVERS, DBD.ACCESS, DBD.RMNAME, DBD.RMRBN, DBD.RMBYTES, DBD.RMANC...	▶	SQL	✕
SELECT H.IMSNAME AS DBD, DBD.TSVERS, DBD.ACCESS, DBD.RMNAME, DBD.RMRBN, DBD.RMBYTES, DBD.RMANC...	▶	SQL	✕
SELECT H.IMSNAME AS DBD, DBD.RMRBN, DBD.RMBYTES, DBD.RMANC...	▶	SQL	✕
SELECT H.IMSNAME AS DBD, DBD.RMRBN, DBD.RMBYTES, DBD.RMANC... FROM DFSCAT00.HEADER AS H, DBD WHERE H.TYPE = 'DBD' AND DBD.ACCESS != 'DEDB' AND DBD.RMNAME='DFSHDC40';	▶	SQL	✕
-- List PSB instances and their PSB parameters: SELECT H.IMSNAME AS PSB, H.PACTTS, H.PPNDTS, PSB.TSVERS FROM DFSCAT00.HEADER...	▶	SQL	✕

Useful SQL statements: Some examples

Find all DBDs that are HIDAM and VSAM

```
SELECT H.IMSNAME AS DBD_NAME,OSACC,ACCESS  
FROM DFSCAT00.HEADER AS H, DBD  
WHERE H.TYPE='DBD' AND ACCESS = 'HIDAM'  
AND OSACC = 'VSAM';
```

Find all versions of DBD IVPDB1

```
SELECT H.IMSNAME AS  
DBD_NAME,ACCESS,OSACC,TSVERS,VERSION  
FROM DFSCAT00.HEADER AS H, DBD  
WHERE H.TYPE='DBD' AND DBD_NAME='IVPDB1';
```

Find all PSBs that reference DBD DFSCD000

```
SELECT H.IMSNAME AS PSB_NAME,PACTTS,TSVERS,  
PCBSEQ  
FROM DFSCAT00.HEADER AS H, PSB, PCB  
WHERE PCB.IMSNAME = 'DFSCD000';
```

Find all logical databases

```
SELECT H.IMSNAME AS DBD_NAME,TSVERS  
FROM DFSCAT00.HEADER AS H, DBD  
WHERE H.TYPE='DBD' AND DBD.ACCESS =  
'LOGICAL';
```

IMS command processing

The screenshot shows a web-based interface for entering and executing IMS commands. At the top, there is a section labeled "IMS command" with an information icon. Below it is a text input field containing the command "QUERY DB NAME(*) SHOW(ALL,LOCAL)". A purple callout box points to this field with the text "Enter the command: Type-1 or Type-2". Below the command field is a horizontal separator line. Underneath, there are two dropdown menus. The first is labeled "IMSplex" and has "BLFA1" selected. A purple callout box points to this dropdown with the text "Select an IMSplex from the list". The second dropdown is labeled "Route List" and has "* (Route all)" selected. A purple callout box points to this dropdown with the text "Select the IMS systems to execute the command".

Select an IMSplex from the list

IMS command processing output

QUERY DB NAME(*) SHO... ×

DISPLAY ACT REGION ×

One tab per command

Output format will depend on type of command

Input command
QUERY DB NAME(*) SHOW(ALL,LOCAL)

Show details

Filter table

DB	AREA	PART	MBR	CC	CCTXT	TYP	LACC	RSDNT	LRSDNT	LSTT	MDLN	MDLT
ACCTA			IFA1	0			UPD		N	NOTINIT-1E- NODMB,NOTOPEN		
ACCUNTD			IFA1	0		DL/I	UPD		N	NOTOPEN		
ACCUNTD			IFA1	0		DL/I	UPD		N	NOTOPEN		
AIRPORTS			IFA1	0			UPD		N	NOTINIT-1E- NODMB,NOTOPEN	DFSDSDB1	DESC

Remember ...
this is all
included at
no charge



The background consists of a complex geometric pattern of overlapping triangles in various shades of blue and white, creating a sense of depth and movement. The triangles are arranged in a way that they appear to be part of a larger, three-dimensional structure.

Getting even more value

Improved administration enabled with additional IBM IMS Tools

DBD maps with source statements

PCB maps with source statements

Combined PCB-DBD maps

PSB and logical DBD cross references

Requires IMS Library Integrity Utilities

Or any IMS Tools solution pack which contains it:

- IMS Fast Path Solution Pack
- IMS Database Solution Pack (for online and offline reorgs)
- IMS Database Utility Solution (for offline reorgs)

Historical trends of sensor data for

- Databases
- DEDB areas
- HALDB partitions

Autonomics related to reorganizations and recovery

- Policy services
- Resource exceptions

Requires one or more of

- IMS Fast Path Solution Pack
- IMS Database Solution Pack (for online and offline reorgs)
- IMS Database Utility Solution (for offline reorgs)
- IMS Recovery Solution Pack

Browsing DBD map

AUTODB

HDAM

DBD

DB

Overview

Properties

DBD map

Cross reference

Statistics

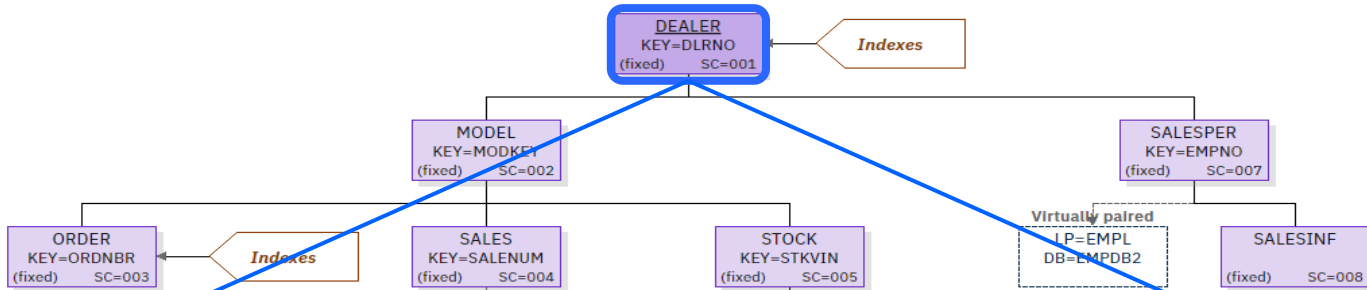
Reports

Exceptions

Segment properties and fields



DBD map



DEALER segment properties

Segment code	Length	Edit/compression	Format	Data set group
001	61 bytes (fixed)		Fixed length	1

Field names

Field name	Start	Bytes
DLRNO	1	4
DLRNAME	5	30
CITY	35	10

Browsing DBD map and source

Dashboard / BLFQ1 / IFQ1 DSGROUP / AUTODB

AUTODB HDAM **DBD** DB

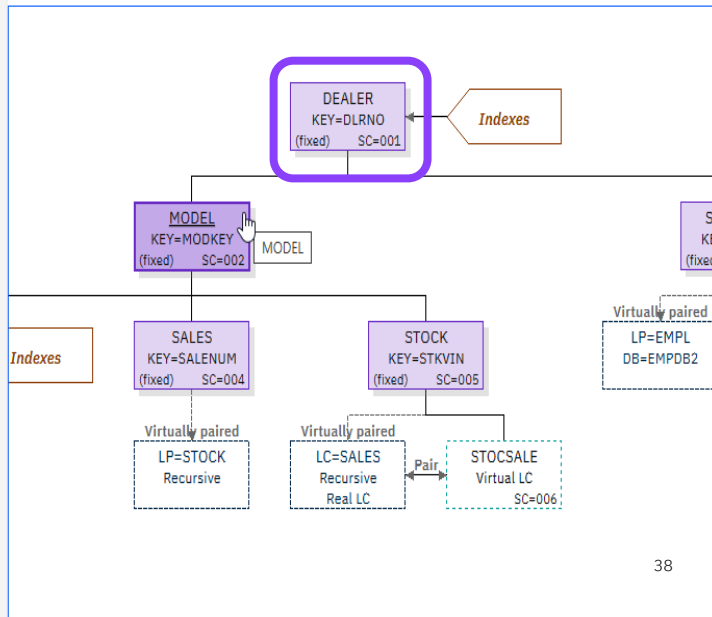
- Overview
- Properties
- DBD map**
- Cross reference
- Statistics
- Reports
- Exceptions

DBD source

Source XML DDL

```
6 * IMS VERSION 15.1
7 DBD NAME=AUTODB,ACCESS=(HDAM,OSAM), C
8 RMMNAME=(DFSHDC40,1,5,200),PASSWD=NO, C
9 VERSION= DATE 11/25/21 TIME 20.54
10 *****
11 * DATASET GROUP NUMBER 1 *
12 *****
13 DSG001 DATASET DD1=DFSDLR,SIZE=(1690),SCAN=3
14 *****
15 * SEGMENT NUMBER 1 *
16 *****
17 SEGM NAME=DEALER,PARENT=0,BYTES=61,RULES=(LLL, LAST), C
18 PTR=(TWIN,...)
19 FIELD NAME=(DLRNO,SEQ,U),START=1,BYTES=4,TYPE=C
20 FIELD NAME=(DLRNAME),START=5,BYTES=30,TYPE=C
21 FIELD NAME=(CITY),START=35,BYTES=10,TYPE=C
22 FIELD NAME=(ZIP),START=45,BYTES=10,TYPE=C
23 FIELD NAME=(PHONE),START=55,BYTES=7,TYPE=C
24 LCHILD NAME=(SINDB,SINDEX22),PTR=INDX,RULES=
25 XDFLD NAME=XFLD2,SEGMENT=MODEL,SUBSEQ=(YEAR,/SX1), C
26 DDATA=(COUNT),SRCH=(MAKE,MODEL)
27 *****
28 * SEGMENT NUMBER 2 *
29 *****
```

DBD map



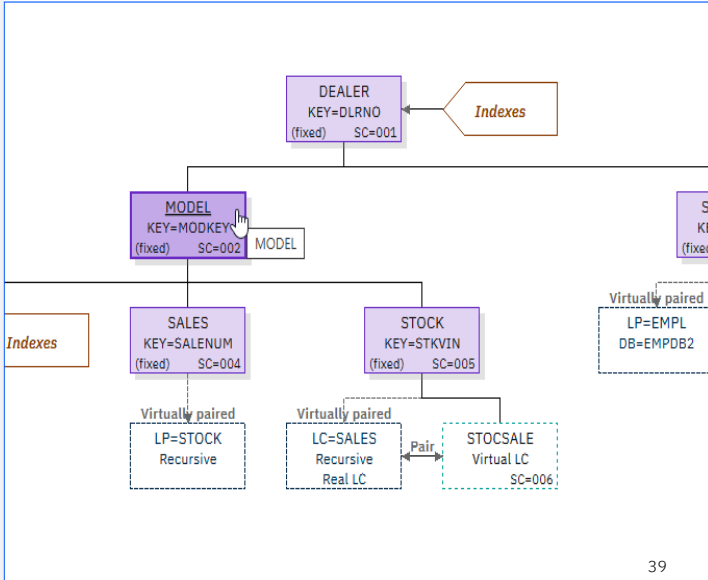
Browsing DBD map and source



DBD source

```
52 INTERNALNAME DEALER
53 MAXBYTES 61
54 TWIN
55 INSERT LOGICAL DELETE LOGICAL REPLACE LOGICAL AMBIGUOUS INSERT LAST
56 CCSID 'Cp1047';
57
58 CREATE TABLE MODEL (
59   MODKEY CHAR(24)
60   START 3
61   TYPE C
62   INTERNALNAME MODKEY
63   PRIMARY KEY
64   INTERNAL TYPECONVERTER CHAR
65   CCSID 'Cp1047',
66   MODTYPE CHAR(2)
67   START 1
68   TYPE C
69   INTERNALNAME MODTYPE
70   INTERNAL TYPECONVERTER CHAR
71   CCSID 'Cp1047',
72   MAKE CHAR(10)
73   START 3
74   TYPE C
```

DBD map



Keeping IMS databases healthy and efficient

Managing IMS databases: Autonomics

Sensors

Gathering database statistics at regular intervals for your environment, including space utilization, fragmentation, recovery readiness, and optimization

Policies

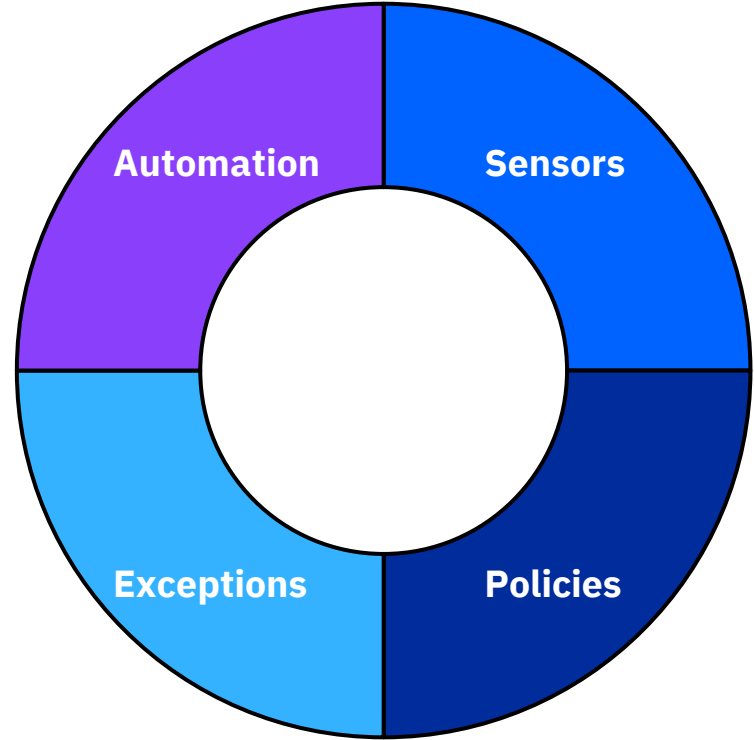
IBM and user-defined policies and thresholds to determine when exceptions should be triggered

Exceptions

Sensors exceed policy thresholds

Automation

Notifications, recommendations and taking corrective actions based on exceptions



Managing IMS databases: Autonomics

Collect sensor data via

- Normal database maintenance tasks
- Scheduled or ad-hoc requests

Must specify databases for which sensor data is collected

[Wildcards supported](#)

Recovery sensors indicate when assets are not available to meet RTO and/or RPO

Reorganization sensors indicate when a database will benefit from a reorganization

- Perform the reorganization (consume MSUs) when it will add value
- Skip the reorganization (save MSUs) when it will not add value

Image copy and/or unload may be required even if reorganization is skipped

[New option: Always perform image copy](#)

[New option: Always unload the database](#)

IMS Tools Base and Solution Packs

APARs PH38517, PH41941
PTFs UI76962, UI78614

Autonomics: View databases with exceptions

See exceptions based on severity, IMS Tools Policy Type, and DBD, Area, or Partition

IBM Unified Experience for z/OS

Dashboard / Databases with exceptions

Databases with exceptions

Overview

Filter table

Name	Area or Partition	Data sharing group	REORG	RECOVERY
AUTODB		IFQ1 DSGROUP	Critical	Critical
AUTODB		IFQ8 DSGROUP	Critical	Critical
DEDBJN23		IFQ1 DSGROUP	Critical	No exceptions
DFSCD000	DB23AR0		Critical	No exceptions
DFSCD000	DB23AR5		Critical	No exceptions
DFSCD000	BLFN9		Warning	Critical
DFSCD000		IFQ1 DSGROUP	Warning	Critical

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View exceptions for a database

DEDBJN23

DEDB

DBD

Link to IBM Documentation of the recommended action to see the detailed instructions

Overview

Properties

DBD map

Cross reference

Statistics

Reports

Exceptions

Click an exception to see the description and related charts at the bottom

Exceptions (11)

Areas with exceptions

All

X v

Related statistics charts



- DB23AR0 in data sharing group IFN8 DSGROUP has critical exceptions in the REORG domain. User action is required. [HFP2905I](#) X
- DB23AR5 in data sharing group IFN8 DSGROUP has critical exceptions in the REORG domain. User action is required. [HFP2905I](#) X

Severity	Area or Partition	Exception	Domain	
Critical	DB23AR0	Excessive percentage of UOWs that use DOVF CIs	REORG	
Critical	DB23AR0	Excessive percentage of UOWs that use IOVF CIs	REORG	

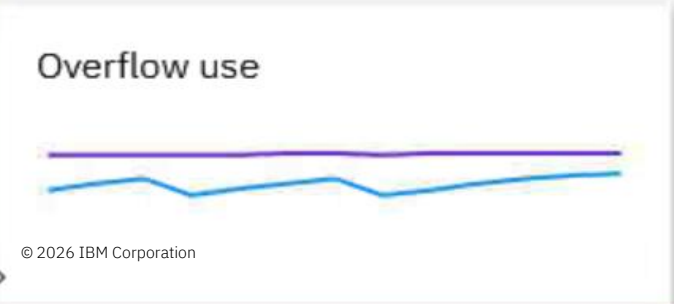
Reviewing relevant information for a DBD exception

Dashboard / BLFN8 / IFN8 DSGROUP / DEDBJN23

DEDBJN23 DEDB DBD

- Overview
- Properties
- DBD map
- Cross reference
- Statistics

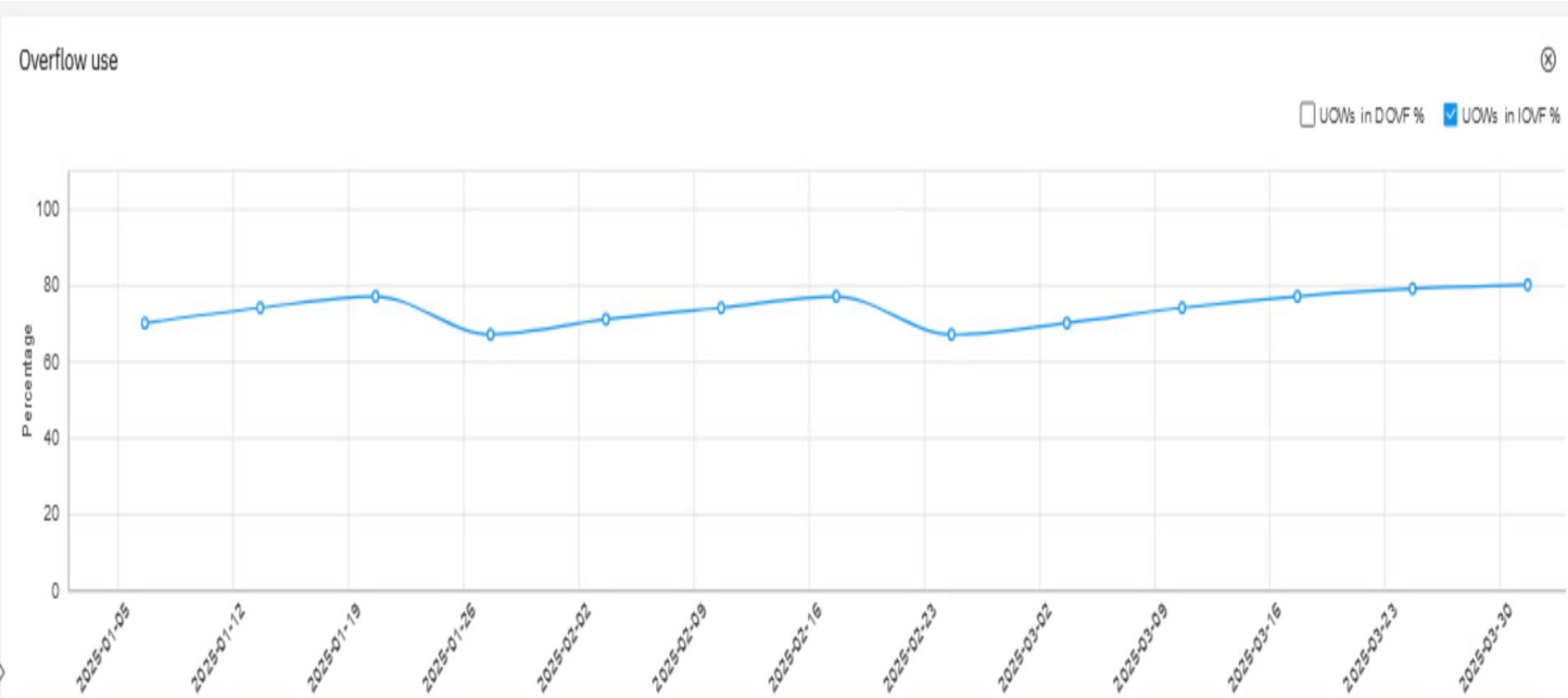
Description The percentage of UOWs that are using IOVF exceeded a threshold in area DB23AR0.
Data collected 2025-03-31 22:00:00
Data evaluated 2025-03-31 22:01:00



Click a **related chart** to see the larger chart on **Statistics** tab. You can review trends based on date range and relevant charts for other sensor data.



Viewing a specific statistical trend



Historical trends for a specific database

[Dashboard](#) / [BLFN8](#) / [IFN8 DSGROUP](#) / [DEDBJN23](#)

DEDBJN23

DEDB DBD

Overview Properties DBD map Cross reference **Statistics** Reports Exceptions

Date range 2025-01 to 2025-04

Display mode

3 years | 1 year | **3 months** | 1 month | 7 days | Custom

Daily Monthly

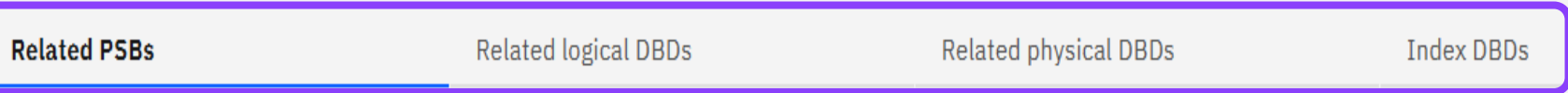
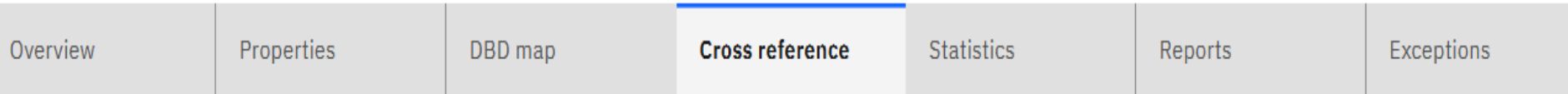
Category	Chart name	Area name
Space use	All	DB23AR0

Making the IMS catalog your asset: Cross references

When updating a database, identify what IMS programs are affected

DBD to PSB Cross Referencing

- Which DBDs are used by a PSB
- Which PSBs access a DBD



Name	Compiler language	Timestamp	IMS version	Referenced DBDs
AUTPSBAL <small>© 2026 IBM Corporation</small>	Assembler	2022-04-19 03:05:58.89	15	1

Making IMS systems visible in IMS Administration Foundation

Discovering IMS systems

Discovery process will find most of the information needed to register the system

Select a system to register, confirm or update information, enter missing information

Subsystems

Register subsystems to make their objects available in experiences.

Registered

Discovered

Search discovered subsystems

Last refreshed 1 hour, 56 minutes ago

Show registered subsystems On

Subsystem type

IMS


Registered

<input type="checkbox"/>	Name	IRLM group	IMSplex	Version	z/OS LPAR	System configuration	No. of members
<input type="checkbox"/>	IFA1 DSGROUP	IFA1DSA	BLFA1	15.5.0	RS01	DB/DC	1
<input type="checkbox"/>	IFN8 DSGROUP		BLFN8	15.5.0	RS01	DB/DC	1
<input type="checkbox"/>	IFN9 DSGROUP		BLFN9	15.5.0	RS02	DBCTL	1

Registering an IMS system to IMS Administration Foundation

Subsystem (IMS) - IFA1 DSGROUP

Data sharing ACB management Job settings Connections

Name  12 / 128

IFA1 DSGROUP

IMSpIex BLFA1
DBRC group ID
IRLM XCF group name IFA1DSA
RECON1 data set IMS.IFA1.RECON1
RECON2 data set IMS.IFA1.RECON2
RECON3 data set IMS.IFA1.RECON3

Group members

IMS ID	IMS version	z/OS LPAR	System configuration
IFA1	15.5.0	RS01	DB/DC

IMS Tools

IMS Tools Knowledge Base server

IDTKBSRV 

RECON ID 

IFA1RCNS

Registering discovered IMS systems

Subsystems

Register subsystems to make their objects available in experiences.

Registered

Discovered



Search registered subsystems

IFA1 DSGROUP 



Subsystem	IMS
IMSplex	BLFA1
RECON ID	IFA1RCNS
Data store aliases	IFA1 More
No. of members	1 member
Last object discovery	1 hour ago
Status	● Ready
Status messages	2 messages

IFN8 DSGROUP 



Subsystem	IMS
IMSplex	BLFN8
RECON ID	IFN8RCNS
Data store aliases	IFN8 More
No. of members	1 member
Last object discovery	1 hour ago
Status	● Ready
Status messages	2 messages

Summary and references

Find the information you need as you implement new IMS functions

What PTFs do I need for my IBM IMS Tools to run on various releases of IMS V15

IMS V15 Compatibility:

<https://www.ibm.com/support/pages/node/7230377>

I need to get ready for IMS Managed ACBs

IMS Tools Support for Managed ACBs:

www.ibm.com/support/docview.wss?uid=ibm10731745

I have OSAM databases and am considering converting them to linear data sets

- For data set encryption
- To take advantage of Media Manager, including zIIP offload in my IBM IMS Tools

IMS Tools Support for Encryption:

www.ibm.com/support/docview.wss?uid=swg22009341

Summary

IMS is **56+ years old**

- Modernize
- Get ready for the **next generation** of IMS system programmers and DBAs

Today's IMS system programmers and DBAs need both

- Traditional ISPF
- Web UI

Development continues in both ISPF and the web UI

- What are your requirements?

References

IMS Tools website

www.ibm.com/it-infrastructure/z/ims/tools

IBM Z Software Newsletter

<http://ibm.biz/zITSMNewsletterSubscribe>

IMS listserv

<http://imslistserv.bmc.com>

Subscribe to notifications about IBM products

<https://www.ibm.com/support/pages/my-notifications-subscription-service>

IMS Tools support for Data Set Encryption

www.ibm.com/support/pages/ibm-ims-tools-and-data-set-encryption-support

IMS Tools Product Documentation

www.ibm.com/support/docview.wss?uid=swg27020942

IMS Fundamentals videos:

https://mediacenter.ibm.com/playlist/dedicated/122579632/1_b56rpdpt/1_jy8lv5f5

IMS Community (including IMS internship)

<https://community.ibm.com/community/user/ibmz-and-linuxone/groups/public?CommunityKey=eba3ada3-db89-4dca-9154-328195f5e560>

IMS new functions

<https://www.ibm.com/docs/en/ims/15.5.0?topic=enhancements-ims-enhancement-ptfs>

IMS Tools new functions

www.ibm.com/support/docview.wss?uid=swg22015506

IMS Tools support for IMS V15

<https://www.ibm.com/support/pages/node/7230377>

IMS Tools support for Managed ACBs

www.ibm.com/support/docview.wss?uid=ibm10731745

IMS Tools Videos on IBM MediaCenter

ibm.biz/ims-tools-mediacenter

IBM software announcements, end of support dates

<https://www.ibm.com/support/pages/lifecycle>

IMS Central

<https://imsdev.github.io/index.html>

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