



CA Database Management for Db2 for z/OS 20.0 (Db2 Tools) Customer Community Update

TEAM PRODUCT OWNERS
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Agenda

- CA Db2 Tools
 - Post Install Enhancements
 - Plans for PTLLPARM
- Sysview for Db2
 - SWAP and SPLIT ISPF Commands
 - Stabalized Dynamic SQL
 - Log Activity Report Redesign
 - Secondary Latch Contention Reporting
 - Support for new Db2 Commands
 - New Db2 12 Fast Index Traversal Statistics
- Plan Analyzer
 - Db2 Version Support Enhancements
- Report Facility and Sysview for Db2
 - Future Requirement for a Persistent Xmanager Started Task

Please Ask Questions...



Post Install Enhancements

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Post Install Enhancements

- **PTFs** - SO12851, SO12852, SO12853
- Overall **GUI unification**
- Bottleneck **processing speed** up 6x (when entering selecting DB2 for tasks)
- **Find/Locate** feature added to panels listing SSIDs
- DB2 Tasks Selection panel - **new column** added for better orientation
- **SORT option** added for Setup Subsystem Edit Selection panel

Post Install Enhancement - Find/Locate

----- Select DB2 Subsystems ----- Row 1 to 51 of 597
Command ==> f q12a Scroll => CSR

Line commands: S to Select to process or see error messages
Commands.....: ALLS, ALLU to Select/Unselect all entries
SORT SSID/SETUP to Reorder rows F SSID to find ssid

S	DB2 SSID	DB2 Version	Messages	PTISYS Member	SETUP Member	PLANS Member	DSNAME Member
---	---	---	-----	-----	-----	-----	-----
---	AD01	V12R1M500		PTISYS00	SETUP00	PLANS00	DSNAME00
---	AD01	V12R1M500		PTISYS01	SETUP01	PLANS01	DSNAME01
---	AD01	V12R1M500		PTISYS02	SETUP02	PLANS02	DSNAME02
---	AD01	V12R1M500		PTISYS03	SETUP03	PLANS03	DSNAME03
---	AD01	V12R1M500		PTISYS04	SETUP04	PLANS04	DSNAME04
---	AD01	V12R1M500		PTISYS05	SETUP05	PLANS05	DSNAME05
---	AD02	V12R1M503*		PTISYS06	SETUP06	PLANS06	DSNAME06
---	AD02	V12R1M504		PTISYS07	SETUP07	PLANS07	DSNAME07
---	AD02	V12R1M504		PTISYS08	SETUP08	PLANS08	DSNAME08
---	AD02	V12R1M503*		PTISYS09	SETUP09	PLANS09	DSNAME09
---	AD02	V12R1M503*		PTISYS10	SETUP10	PLANS10	DSNAME10
---	AD03	V12R1M504		PTISYS11	SETUP11	PLANS11	DSNAME11
---	AD03	V12R1M504		PTISYS12	SETUP12	PLANS12	DSNAME12
---	AD03	V12R1M504		PTISYS13	SETUP13	PLANS13	DSNAME13
---	AD03	V12R1M504		PTISYS14	SETUP14	PLANS14	DSNAME14
---	AD03	V12R1M504		PTISYS15	SETUP15	PLANS15	DSNAME15
---	AD03	V12R1M504		PTISYS16	SETUP16	PLANS16	DSNAME16
---	AD03	V12R1M504		PTISYS17	SETUP17	PLANS17	DSNAME17
---	AD03	V12R1M504		PTISYS18	SETUP18	PLANS18	DSNAME18
---	AD03	V12R1M504		PTISYS19	SETUP19	PLANS19	DSNAME19
---	AD03	V12R1M504		PTISYS20	SETUP20	PLANS20	DSNAME20
---	AD04	V12R1M503*		PTISYS21	SETUP21	PLANS21	DSNAME21
---	AD04	V12R1M503*		PTISYS22	SETUP22	PLANS22	DSNAME22
---	AD04	V12R1M503*		PTISYS23	SETUP23	PLANS23	DSNAME23
---	AD04	V12R1M503*		PTISYS24	SETUP24	PLANS24	DSNAME24
---	AD04	V12R1M503*		PTISYS25	SETUP25	PLANS25	DSNAME25
---	AD05	V12R1M502		PTISYS26	SETUP26	PLANS26	DSNAME26
---	AD05	V12R1M502		PTISYS27	SETUP27	PLANS27	DSNAME27
---	AD05	V12R1M502		PTISYS28	SETUP28	PLANS28	DSNAME28
---	AD05	V12R1M502		PTISYS29	SETUP29	PLANS29	DSNAME29
---	AD05	V12R1M502		PTISYS30	SETUP30	PLANS30	DSNAME30
---	AD05	V12R1M502		PTISYS31	SETUP31	PLANS31	DSNAME31
---	AD05	V12R1M502		PTISYS32	SETUP32	PLANS32	DSNAME32
---	AD05	V12R1M502		PTISYS33	SETUP33	PLANS33	DSNAME33
---	AD05	V12R1M502		PTISYS34	SETUP34	PLANS34	DSNAME34
---	AD05	V12R1M502		PTISYS35	SETUP35	PLANS35	DSNAME35
---	AD05	V12R1M502		PTISYS36	SETUP36	PLANS36	DSNAME36
---	AD05	V12R1M502		PTISYS37	SETUP37	PLANS37	DSNAME37
---	AD05	V12R1M502		PTISYS38	SETUP38	PLANS38	DSNAME38
---	AD05	V12R1M502		PTISYS39	SETUP39	PLANS39	DSNAME39
---	AD05	V12R1M502		PTISYS40	SETUP40	PLANS40	DSNAME40
---	AD05	V12R1M502		PTISYS41	SETUP41	PLANS41	DSNAME41
---	AD05	V12R1M502		PTISYS42	SETUP42	PLANS42	DSNAME42
---	AD05	V12R1M502		PTISYS43	SETUP43	PLANS43	DSNAME43
---	AD05	V12R1M502		PTISYS44	SETUP44	PLANS44	DSNAME44
---	AD05	V12R1M502		PTISYS45	SETUP45	PLANS45	DSNAME45
---	AD05	V12R1M502		PTISYS46	SETUP46	PLANS46	DSNAME46
---	AD05	V12R1M502		PTISYS47	SETUP47	PLANS47	DSNAME47
---	AD05	V12R1M502		PTISYS48	SETUP48	PLANS48	DSNAME48
---	AD05	V12R1M502		PTISYS49	SETUP49	PLANS49	DSNAME49
---	AD05	V12R1M502		PTISYS50	SETUP50	PLANS50	DSNAME50

Post Install Enhancement - Find/Locate

----- Select DB2 Subsystems ----- Row 559 to 597 of 597
Command ==> Scroll => CSR

Line commands: S to Select to process or see error messages
Commands.....: ALLS, ALLU to Select/Unselect all entries
SORT SSID/SETUP to Reorder rows F SSID to find ssid

S	DB2 SSID	DB2 Version	Messages	PTISYS Member	SETUP Member	PLANS Member	DSNAME Member
—	Q12A	V12R1M500		PTISYSDV	SETUP00	PLANS00	DSNAME00
—	Q12A	V12R1M500		PTISYSJT	SETUPJT	PLANS00	DSNAMEJT
—	Q12A	V12R1M500		PTISYSTJ	SETUPTJ	PLANS00	DSNAMEJT
—	Q12A	V12R1M500		PTISYSXT	SETUPXT	PLANSXT	DSNAME00
—	Q12A	V12R1M500		PTISYSZT	SETUPZT	PLANSZT	DSNAME00
—	Q12A	V12R1M500		PTISYS00	SETUP00	PLANS00	DSNAME00
—	Q12A	V12R1M500		PTISYS20	SETUP00	PLANS00	DSNAME00
—	Q12B	V12R1M501		PTISYSDV	SETUP00	PLANS00	DSNAME00
—	Q12B	V12R1M501		PTISYSJT	SETUPJT	PLANS00	DSNAMEJT
—	Q12B	V12R1M501		PTISYSTJ	SETUPTJ	PLANS00	DSNAMEJT
—	Q12B	V12R1M501		PTISYSTS	SETUPTS	PLANS00	DSNAMETS
—	Q12B	V12R1M501		PTISYSWK	SETUPWK	PLANS00	DSNAMEWK
—	Q12B	V12R1M501		PTISYSXT	SETUPXT	PLANSXT	DSNAME00
—	Q12B	V12R1M501		PTISYSZT	SETUPZT	PLANSZT	DSNAME00
—	Q12B	V12R1M501		PTISYS00	SETUP00	PLANS00	DSNAME00
—	Q12B	V12R1M501		PTISYS20	SETUP00	PLANS00	DSNAME00
—	Q91A	V12R1M500		PTISYSDV	SETUP00	PLANS00	DSNAME00
—	Q91A	V12R1M500		PTISYSJT	SETUPJT	PLANS00	DSNAMEJT
—	Q91A	V12R1M500		PTISYSTJ	SETUPTJ	PLANS00	DSNAMEJT
—	Q91A	V12R1M500		PTISYSTS	SETUPTS	PLANS00	DSNAMETS
—	Q91A	V12R1M500		PTISYSWK	SETUPWK	PLANS00	DSNAMEWK
—	Q91A	V12R1M500		PTISYSXT	SETUPXT	PLANSXT	DSNAME00
—	Q91A	V12R1M500		PTISYSZT	SETUPZT	PLANSZT	DSNAME00
—	Q91A	V12R1M500		PTISYS00	SETUP00	PLANS00	DSNAME00
—	Q91A	V12R1M500		PTISYS20	SETUP00	PLANS00	DSNAME00
—	Q91B	V12R1M502*		PTISYSDV	SETUP00	PLANS00	DSNAME00
—	Q91B	V12R1M500*		PTISYSTS	SETUPTS	PLANS00	DSNAMETS

Post Install Enhancement - ID column

----- Select DB2 Tasks ----- Row 1 to 28 of 28
Command ==> Scroll => CSR

Line commands: S to Select, V to View task information
Commands.....: ALLS, ALLU, ALLV to Select all/Unselect all/View all

S	Product	Task Description	Member	ID
INS		Start XManager	N/A	XMAN
INS		Determine DB2 Object Sizes (Recommended)		STAT
INS		Compare DB2 Objects		0000
INS		Create Required DB2 Objects		0001
INS		Create Catalog Indexes (Optional)	N/A	CIDX
INS		Bind Product Packages and Plans		0002
INS		Copy Plan Authorizations		0003
INS		Free Obsolete Packages and Plans		0004
GEN		Grant Public Access to Global Defaults		0225
GEN		Grant Public Access to General Services Plan		0226
GEN		Grant Public Access to Object List Manager Plan		0227
GEN		Grant XManager Execute for UPM Functions		0228
IDB2		CA Sysview for DB2: DB2 Specific Install Tasks		0550
PPA		Plan Analyzer - Install/Upgrade Customization		0800
PPA		Plan Analyzer Stored Procedure Installation		0801
PRF		PRF Table Initialization Utility (PRFINIT/PRFX)		0850
PRF		PRF Table Conversion Utility (PRFCNVRT)		0851
PRA		Define PRA Table Backup GDG Datasets		0875
PRA		Setup PRA#LOAD Batch JCL		0876
PRA		Load Disaster Recovery Backup Types Table		0877
QRF		Compile/PRF Table Conversion Utility		1100
PDA		Database Analyzer - Install/Upgrade Customization		1125
RCM		Load and Customize the Model Services Table		1300
RCM		Load the Automapping Mask Services Table		1301
RCM		Load the Rule Set Table		1302
RCM		Install RCM SQL Stored Procedure Processor		1303
RCQ		Initialize the RC/Query Report Table		1400
RCS		Initialize RC/Secure Department Definition Table		1500

***** Bottom of data *****

Post Install Enhancement - Sort

```

----- -- SETUP Subsystem Edit Selection ----- Row 1 to 49 of 77
Command ==> sort m d Scroll => CSR
PF keys.....: SELECT to Continue, PF1 for Help Member..: SETUP00
                PF3/END to Return to the previous panel
                PF7/UP to Scroll Up, PF8/DOWN to Scroll Down
Line commands: D,I,R,S to Delete, Insert, Replicate or Select an entry
Commands.....: CANCEL to Exit without saving changes
                F ssid to find SSID, SORT S/V/M/D A/D to sort by columns

S  SSID  Version  Messages  Subsystem Description
-----
DP11 V12R1M502 DB2 12 500 GOING TO 502
DP31 V12R1M502 DB2 12 500 GOING TO 502
DP32 V12R1M502 DB2 12 500 GOING TO 502
DPG V12R1M502 DB2 12 500 GOING TO 502
AD01 V12R1M500 DB2 12 506 TESTING
AD02 V12R1M503* DB2 12 506 TESTING
AD03 V12R1M504 DB2 12 504 TESTING
AD05 V12R1M502 DB2 12 503 TESTING
AD06 V12R1M500 DB2 12 SSAR TESTING
AD04 V12R1M503* DB2 12 504 TESTING
AD09 V12R1M505 DB2 12 505 TESTING
AD10 V12R1M504 DB2 12 504 TESTING
Q12A V12R1M500 DB2 12
Q12B V12R1M501 DB2 12
DC32 V12R1M500 DB2 12 502 TOLERATION TESTING
DCGP V12R1M500 DB2 12 502 TOLERATION TESTING
Q91A V12R1M500 DB2 12 504 TOLERATION TESTING
Q91C V12R1M500 DB2 12 SSAR TESTING
Q91B V12R1M502* DB2 12 505 FALLBACK TESTING
DBQ1 V12NF(Y) DB2 12
D81B V12R1M501 DB2 12
DBN1 V12R1M500 DB2 11 GOING TO 12
DBN2 V12NF(Y) DB2 11 GOING TO 12
DBN3 V12NF(N) DB2 11 GOING TO 12
D12A V12R1M500 DB2 11 GOING TO 12
DT11 V12NF(Y) DB2 11 GOING TO DB2 12
DT31 V12NF(Y) DB2 11 GOING TO DB2 12

```

Post Install Enhancement - Sort

```
----- SETUP Subsystem Edit Selection ----- Row 1 to 49 of 77
Command ==> CSR
PF keys.....: SELECT to Continue, PF1 for Help Member..: SETUP00
PF3/END to Return to the previous panel
PF7/UP to Scroll Up, PF8/DOWN to Scroll Down
Line commands: D,I,R,S to Delete, Insert, Replicate or Select an entry
Commands.....: CANCEL to Exit without saving changes
F ssid to find SSID, SORT S/V/M/D A/D to sort by columns

S SSID Version Messages Subsystem Description
-----
D81D V10EN9* Not supported V10 EN9*
D10A V10NFM Not supported DB2 SUBSYSTEM
Q10A V10NFM Not supported DB2 SUBSYSTEM
Q10B V10NFM Not supported DB2 SUBSYSTEM
D10B V10CM9 Not supported DB2 SUBSYSTEM
D10C V10CM8 Not supported DB2 SUBSYSTEM
D10E V10NFM Not supported DB2 SUBSYSTEM
DB0G V10NFM Not supported DB2 SUBSYSTEM
DB1G V10NFM Not supported DB2 SUBSYSTEM
DB2G V10NFM Not supported DB2 SUBSYSTEM
DB3G V10NFM Not supported DB2 SUBSYSTEM
DB4G V10NFM Not supported DB2 SUBSYSTEM
DC0G V10CM8 Not supported DB2 SUBSYSTEM
B91E V10NFM Not supported V10
B91D V10NFM Not supported V10
MP24 V10NFM Not supported PRIOR DB2 VERSION NOW 10
MO24 V9NFM Not supported OLD DB2 VERSION: NOW 9
Q12A V12R1M500 DB2 12
DP11 V12R1M502 DB2 12 500 GOING TO 502
DP31 V12R1M502 DB2 12 500 GOING TO 502
DP32 V12R1M502 DB2 12 500 GOING TO 502
DPG V12R1M502 DB2 12 500 GOING TO 502
```

Post Install Enhancement - Find/Locate

```
----- SETUP Subsystem Edit Selection --- Row 14 to 62 of 77
Command ==> f b91e Scroll => CSR
PF keys.....: SELECT to Continue, PF1 for Help Member..: SETUP00
                PF3/END to Return to the previous panel
                PF7/UP to Scroll Up, PF8/DOWN to Scroll Down
Line commands: D,I,R,S to Delete, Insert, Replicate or Select an entry
Commands.....: CANCEL to Exit without saving changes
                F ssid to find SSID, SORT S/V/M/D A/D to sort by columns

S SSID Version Messages Subsystem Description
-----
B91E V10NFM Not supported V10
B91D V10NFM Not supported V10
MP24 V10NFM Not supported PRIOR DB2 VERSION NOW 10
MO24 V9NFM Not supported OLD DB2 VERSION: NOW 9
Q12A V12R1M500 DB2 12
DP11 V12R1M502 DB2 12 500 GOING TO 502
DP31 V12R1M502 DB2 12 500 GOING TO 502
DP32 V12R1M502 DB2 12 500 GOING TO 502
DPG V12R1M502 DB2 12 500 GOING TO 502
AD01 V12R1M500 DB2 12 506 TESTING
AD02 V12R1M503* DB2 12 506 TESTING
AD03 V12R1M504 DB2 12 504 TESTING
AD05 V12R1M502 DB2 12 503 TESTING
AD06 V12R1M500 DB2 12 SSAR TESTING
AD04 V12R1M503* DB2 12 504 TESTING
AD09 V12R1M505 DB2 12 505 TESTING
AD10 V12R1M504 DB2 12 504 TESTING
Q12B V12R1M501 DB2 12
DC32 V12R1M500 DB2 12 502 TOLERATION TESTING
```

Any Questions...



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Plans for PTLLPARM

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Plans for PTLLPARM

- What is PTLLPARM
 - PTLLPARM is an **optional** load module with compiled CDBAPARM information
 - originally intended for additional security
 - if it exists, all parmlib will be taken from the PTLLPARM, **CDBAPARM won't be read**
 - Using PTLLPARM was **not recommended** for years

```
PTPEPRMS ----- Edit Parmlib Members ----- 2020/05/15 11:21
Command ==>
SCROLL ==> CSR

S Member      Product Name
-----
- ALOGDEL     Auto. Log Delete
- BATPROC     Batch Processor
- DEFAULTS    Global Defaults
- MIGRATOR     RC/Migrator
- OFA         Chorus OFS Agent
- OFS         Object Framework Service
- PDA         Database Analyzer
- PFR         Fast Recover
- PLA         Log Analyzer
- PMM         Merge/Modify
- PPA         Plan Analyzer
- PRA         Recovery Analyzer
- RCEDIT      RC/Update
- RCQ         RC/Query
- RCX         RC/Extract
- SECURE      RC/Secure
- SQE         SQL-Ease
- UTIL        Utilities General Functions
- UTLS        CA Utility Sort
- Create Parameter Load Module (not recommended)
***** BOTTOM OF DATA *****
```

```
PTPLPARM ----- Link Parmlib Members Warning ----- 2020/05/15 11:24
Command ==>

Press ENTER to format JCL that will create a load module named PTLLPARM
When this module exists in any library that is allocated as PTILIB for an
execution of the products, all parmlib values will be taken from the PTLLPARM
load module and not read from the members in the PARMLIB (PTIPARM) dataset
allocation.

This process is optional and we recommend that you do not create PTLLPARM
unless you need the added security! Once you create PTLLPARM, please remember
that modifications to parmlib values will not take effect until you re-create
the module.

Specify the values for the JCL to be created:
Assembler to use.....> ASMA90      (ASMA90 or IEV90)
Input parameter library..> HLQ.CDBAPARM
Output load library .....> HLQ.CDBALOAD
```

Plans for PTLLPARM, cont.

- Problems
 - **confusions** from where the settings is being read
 - modifications in **CDBAPARM** are **ignored** until a recompile
 - difficulties to **detect PTLLPARM** is being used
 - users already had security in place
 - modifies SMP/E target CDBALOAD library
- We have solicited a survey last year
 - only a very few customers using PTLLPARM
- Our plans
 - we will introduce a **warning message** for existing users
 - we will provide an **extract utility** to externalize existing PTLLPARM content
 - we plan to **eliminate the support** for PTLLPARM in the future (no date yet)
- If you have any concerns please reach to us

Any Questions...



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Sysview for Db2

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SWAP and SPLIT ISPF commands

SWAP and SPLIT ISPF commands


- ISPF commands **SWAP** and **SPLIT** can now be entered as line commands
 - SWAP was available before but only as PFkey
- Help Index lists all available commands:
 - “H” → “2 INDEX” → “Command Summary”:

CA SYSVIEW for DB2 Help Index

DBGINDEX

Place the cursor on the hyperlink and press ENTER to get further details.

About CA SYSVIEW for DB2
New in CA SYSVIEW for DB2
Batch
Batch Reporting
Online
Command Summary
Error Messages
Non-History Reports
History Reports



Tutorial: Command Summary

SORT	(R)	Sort column (A/D), sort
SPLIT		Split the UI screen
START	(R)	Add a request or probe
STARTU	(R)	Add an unqualified requ
STOP	(R)	Delete a request or pro
SWAP		Swap the UI screen
SWITCH	(R)	Force unload of one or
SYSTEMS		Display the System Ma

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SWAP LIST Example

Menu

Print

Tools

Help

CA SYSVIEW for DB2

20.0

D12A CA31

D12APR20

04/14/20

05:40:27

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Systems

DB2 System

Threads

Systems Menu

1 System Statistics

2 System History

3 CICS / IMS Attachments

4 Messages

5 Active

6 Thread

7 Expla

8 User

9 Excep

0 Perma

Command ==>

SWAP LIST

F1=Help

2-Split

ISPF Task List

Active ISPF Logical Sessions

.

Start a new screen

.

Start a new application

Application Name

ID

Name

Panelid

Applid

Session Type

.

1*

IUISSWAP

RC

3270

.

2

ISP@MSTR

ISP

3270

.

3-

ISP@MSTR

ISP

3270

.

.

F1=Help

F3=Exit

F7=Backward

F8=Forward

F11=Expand

F12=Cancel

Stabilized Dynamic SQL

Stabilized Dynamic SQL

- Dynamic SQL reports are updated
- A new column displaying if a dynamic query is Stabilized or Not
- Main Menu → “10”

R/DYNSQLST Dynamic SQL statements in cache Item 19-36/1568

SORT OFF

Actions: s=select for statement detail

SQL Text (16 bytes)	Accum Lock	Accum DB2	Accum Services	Accum Accl Elap	Accum Accel CPU	Accel Elig	Invald Status	Catlg Stblz	Inserted Timestamp	
_ INSERT INTO TC14	0.000	0.000	0.000	0.000	0.000	No	00	No	05/18/20 16:16:36	INSERT 1
_ INSERT INTO TC14	0.000	0.000	0.000	0.000	0.000	No	00	No	05/18/20 16:16:36	INSERT 1
_ SELECT 1 FROM SY	0.000	0.000	0.000	0.000	0.000	No	00	No	05/16/20 23:48:57	SELECT 1
_ SELECT 1 FROM SY	0.000	0.000	0.000	0.000	0.000	No	00	No	05/17/20 23:46:55	SELECT 1
_ SELECT 1 FROM SY	0.000	0.000	0.000	0.000	0.000	No	00	No	05/18/20 07:22:41	SELECT 1
_ SELECT 1 FROM SY	0.000	0.000	0.000	0.000	0.000	No	00	Yes	05/18/20 09:01:41	SELECT 1
_ SELECT 1 FROM SY	0.000	0.000	0.000	0.000	0.000	No	00	Yes	05/18/20 10:11:49	SELECT 1
_ SELECT 1 FROM SY	0.000	0.000	0.000	0.000	0.000	No	00	No	05/18/20 10:12:28	SELECT 1
_ INSERT INTO TC14	0.000	0.000	0.000	0.000	0.000	No	00	No	05/18/20 16:16:34	INSERT 1
_ INSERT INTO TC14	0.000	0.000	0.000	0.000	0.000	No	00	No	05/18/20 16:16:35	INSERT 1
_ INSERT INTO TC14	0.000	0.000	0.000	0.000	0.000	No	00	No	05/18/20 16:16:35	INSERT 1
_ INSERT INTO TC14	0.000	0.000	0.000	0.000	0.000	No	00	No	05/18/20 16:16:35	INSERT 1
_ select T.NDMTRAN	0.000	0.000	0.000	0.000	0.000	No	00	No	05/18/20 12:58:25	select 1
_ INSERT INTO TC14	0.000	0.000	0.000	0.000	0.000	No	00	No	05/18/20 16:16:34	INSERT 1
_ INSERT INTO TC14	0.000	0.000	0.000	0.000	0.000	No	00	No	05/18/20 16:16:36	INSERT 1
_ INSERT INTO TC14	0.000	0.000	0.000	0.000	0.000	No	00	No	05/18/20 16:16:34	INSERT 1
_ INSERT INTO TC14	0.000	0.000	0.000	0.000	0.000	No	00	No	05/18/20 16:16:36	INSERT 1
_ INSERT INTO TC14	0.000	0.000	0.000	0.000	0.000	No	00	No	05/18/20 16:16:34	INSERT 1

Updated Reports :

Dynamic SQL Statements in Cache

Dynamic SQL Stats - Current Hist Interval

Dynamic SQL Statistics - History Interval

Stabilized Dynamic SQL

- Stabilized Statement ID and Stabilization Group Name are available in Thread Details
- Main menu → “10” → S

```

R/DYNSQLTX      selected dynamic SQL statement in cache
SORT N/A
Users           0      Stmt num   1      Program name  SYSLH200
Active copies   0      Executions 5461    Transaction   DCDTKAWC-CA31
Statement ID    00000909      Gen stmt name 1B484F4C4525001A101967710000004E
Bind SQLID      DCDADM
Table qual      DCDQUTW1
Owner user ID   DCDADM
End user ID     DCDTKAWC
Workstn name    10.175.84.31
Invalid status  00      current data  N
Isolation       CS      current rules  D
Schema          DCDQUTW1

  stabilized ID 00000000000000065
  Group name    APP1

Time inserted   05/18/20 09:01:41
Stats started   05/16/20 21:40:54
Stats updated   05/19/20 06:00:34

RID list occurrences  Limit storage
Failed                0          0
Paged out             0          0
Interrupted           0          0
Retrieval skipped    0

```


Log Activity Report Redesigned



Log Manager statistics: BEFORE

“1” System Statistics → “6” More → “4” Log Activity

```

Menu  Print  Tools  Help      CA SYSVIEW for DB2      D11A CA31      04/14/20 11:54:00
                                20.0                  D11APR20      SOLAY01

```



```

R/LOGSTATS      Log Activity - Accum

```



```

11:53:30

```

DB2 CHECKPOINTS.....Taken	45	LOG RBA.....	00000000161F813BCA93
READS FROM..... Buffer	572038	WRITES.....	Nowait 18807K
Active Log	2221K		Force 23051
Archive Log	0	ARCHIVE LOG..	Read Allocations 0
CONTROL INTERVALS... Created	2068K		write Allocations 8
offloaded	1920K	CALLS.....	Write Active Log 436320
DELAYED.....	Writes 25		BSDS access 16156
Reads - Resources	0	LOOK AHEAD TAPE MOUNT	Attempts 0
Reads - Tape Vol Contention	0		Failures 0
LOG WRITE.....Suspended	357832	LOG WRITE...Serial	CI Requests 0
I/O Requests	1066K	Scheduled - write	Threshold 78984
control intervals written	4835K		Buffers Paged-In 0

Log Manager statistics: AFTER

“1” System Statistics → “6” More → “4” Log Activity

<u>Menu</u> <u>Print</u> <u>Tools</u> <u>Help</u>		<u>CA SYSVIEW for DB2</u>	DBN1 CA11	03/25/20	10:55:55
		20.0	DBN1ENDK3		SNOOL01
R/LOGSTATS Log Activity - Accum					
			<u>Accum</u>		
10:55:53					
Highest RBA	0000000000326821C490	Log WRITES to active log			
Checkpoints taken	59	Asynch NOWAIT requests	73565729		
BSDS access requests	51469	Asynch scheduled by threshold	115423		
CDDS access requests	0	Synch FORCE requests	1818		
Log READs					
From log buffer	84717	Log WRITE I/Os to active log			
From active log	42484	Total number of requests	256506		
From archive log	0	Serial requests	0		
VSAM Control Intervals					
Created for active log	2620952	Successful with zHyperLink	0		
Written to active log	5245282	Unsuccessful with zHyperLink	0		
Offloaded to archive log	2635200	Log WRITE routine calls	117497		
Archive log allocations					
For reading	0	Log WRITE suspends			
For writing	61	Total number of suspends	8365		
"Look-ahead" tape mounts					
Attempted	0	Suspended by XES	0		
Failed	0	Suspended by XES time	0.00		
Delays					
WRITES - no available buffer					
READs - unavailable resources					
READs - tape vol contentions					
Output log buffers paged-in					

Secondary Latch Contention Reporting

Secondary Latch Contention Reporting

New real time and history reports

System Statistics → More → Locks and Latches → Secondary Latches

Menu		Print		Tools		Help		CA SYSVIEW for DB2		D12A CA31		26.02.20 02:51:38	
								20.0		D12AWK5		ZEIMA02	
1 Locks		2 Global Locks		3 Latches		4 Secondary Latches							
R/LACONT2		Secondary Latch Contentions - Accum											
												Accum	
Latch Contentions		IRLM											
Main - Main held		0		Abends Retried		0							
Main - Non-zero use count		76		Abends Non-retryable		0							
Secondary - Main held		2546		Local Deadlocks		0							
Generic		0		Timeout RLBs purged		0							
Resource		0		COMPAT Queue Elements									
Notify Ctrl Blk - NOTIFY		0		QE Generated		577							
				Use Count for QE		0							
		Resource		WorkUnit									
		Hash Table		Hash Table									
LOCK		210		0		Exits Counts							
UNLOCK		466		5		Suspend		3756					
CHANGE		0		0		Resume		3756					
COMPAT		0		0		Status		0					
QUERY FAST		0		0		Deadlock		0					
ASYNC LOCK		0		0		Timeout		5					
SYNC		N/A		0									
NOTIFY		0		N/A									

Support for New Db2 Commands

New Db2 Commands

- **Supported by Db2 z/OS V11 and Db2 z/OS V12 :**

- DISPLAY RESTSVC
- START RESTSVC
- STOP RESTSVC
- START CDDS
- STOP CDDS

- **Supported by Db2 z/OS V12 :**

- DISPLAY ML
- START ML
- STOP ML

Updated Reports :

- Command Counts (**ICMDS**)
- Command Counts History (**HSCMD**)
- Command Counts History Summary (**HSUCMD**)
- Statistics Data Trace (**BTSTATR1**)
- Summary Of DB2 System Service Address Space Statistics (**BTSTASM1**)

Support of Reporting New Db2 Commands

“1” System Statistics → “6” More → “6” Thread and Command Counts → “2” Command Counts

<u>Menu</u> <u>Print</u> <u>Tools</u> <u>Help</u>		<u>CA SYSVIEW for DB2</u>		D12A CA31	04/14/20 07:13:01
		20.0		D12AENDK3	SNOOL01
— 1 Thread Counts		2 Command Counts			
R/ICMDS		Command Counts - Accum			
				<u>Accum</u>	
Unrecognized Commands		16			
	DISPLAY	START	STOP/TERM		Total
DB2	n/a	1	0		
LOCATION	0	n/a	n/a		
DATABASE	3484	1057	660	ACCESS DATABASE	0
TRACE	4	18	7	MODIFY TRACE	9
RLIMIT	2	0	0	RECOVER INDOUBT	0
UTILITY	7	n/a	119	ALTER UTILITY	0
DDF	6	0	0	MODIFY DDF	0
THREAD	76	n/a	n/a	CANCEL DDF THREAD	0
BUFFERPOOL	4	n/a	n/a	ALTER BUFFERPOOL	120
GRP BUFFERPOOL	1	n/a	n/a	ALTER GRP BUF PL	0
ARCHIVE	4	n/a	n/a	SET ARCHIVE	0
PROCEDURE	2	0	0	RESET INDOUBT	0
GROUP	275	n/a	n/a	RESET GENERICLU	0
FUNCTION	0	0	0	SET SYSPARM	0
LOG	0	n/a	n/a	SET LOG	0
PROFILE	0	0	0	ARCHIVE LOG	0
ACCELERATOR	0	0	0	RECOVER BSDS	0
DYNQUERYCAPTURE	0	0	0	ACTIVATE FUNC LVL	0
ML	1	2	3		
RESTSVC	4	5	6		
CDDS	n/a	7	8		

Support of New Db2 Commands

Statistics Data Trace (BTSTATR1)

...+....10....+....20....+....30....+....40....+....50....+....60....+....70....+....80....+....90....+....100....+....110....+....120....+....130									
IFI STATISTICS		COMMAND STATISTICS		COMMAND STATISTICS		LATCH MANAGER STATISTICS			
IFI ABENDS	0	DISPLAY ACCEL	0	ACCESS DATABASE	0	1-TEST LATCH	0		
IFI UNRECOGNIZED	0	DISPLAY ARCHIVE	0	ACTIVATE FUNC LVL	0	2-GLOBAL AUTH CACHE	0		
IFI COMMANDS	1	DISPLAY BUFFERPOOL	0	ALTER BUFFERPOOL	0	3-DDF DISCONNECT	0		
IFI READA	62	DISPLAY DATABASE	0	ALTER GRP BUF PL	0	4-SYSSTRING CACHE	0		
IFI READS	324	DISPLAY DDF	0	ALTER UTILITY	0	5-IRLM DS EXITS OR RLF	0		
IFI WRITES	0	DISPLAY FUNCTION	0	ARCHIVE LOG	0	6-DATA SHR INDX SPLITS	0		
ACCOUNTING ROLLUP RECORDS		DISPLAY GROUP	1	CANCEL DDF THREAD	0	7-INDEX/OBD ALLOCATION	0		
WRITES:ROLLUP COUNT		DISPLAY GRP BUF PL	0	MODIFY DDF	0	8-QUERY PARALLELISM	0		
WRITES:STORAGE LIMIT		DISPLAY LOCATION	0	MODIFY TRACE	0	9-UTILITIES/SP URIDs	0		
WRITES:TIME LIMIT		DISPLAY LOG	0	RESET GENERICLU	0	10-SEQUENCE OBJECTS	0		
NOT WRITTEN NO DATA		DISPLAY PROCEDURE	0	RESET INDOUBT	0	11-CONCUR TRANS SEQ	0		
DATA CAPTURE STATISTICS		DISPLAY PROFILE	0	SET ARCHIVE	0	12-DB ALLOC CONTROL	0		
LOG RECORDS CAPTURED		DISPLAY RLIMIT	0	SET LOG	0	13-PAGESET OPERATIONS	0		
LOG EXTRACTIONS		DISPLAY THREAD	0	SET SYSPARM	0	14-BP RELATED ACTIVIT	0		
DATA ROWS READ		DISPLAY TRACE	0	TERM UTILITY	0	15-ARCH LOG QUIESCE	0		
LOG RECORDS READ		DISPLAY UTILITY	0	UNRECOGNIZED CMDS	0	16-UR SYNONYM CHAIN	0		
DATA DESCRIPTNS READ		DISPLAY RESTSVC	4	LOG MANAGER STATISTICS		17-RURE CHAIN	0		
TABLES RETURNED		DIS DYNQUERYCAPTURE	0	WRITE REQ WAIT		18-DDF RESYNCH LIST	0		
DESCRIBES PERFORMED		DISPLAY ML	0	WRITE REQ NOWAIT		19-LOGICAL LOG WRITE	0		
Z/OS SYSTEM STATISTICS		START ACCEL	0	WRITE REQ FORCE		20-SYSTEM CHECKPOINT	0		
NUMBER CP'S ON LPAR		START DATABASE	0	UNAVAIL ACTIVE BUF		21-ACCOUNTING ROLLUP	0		
REAL STG (MB) - LPAR		START DDF	0	LOG READS FROM BUF		22-INTERNAL CHECKPOINT	0		
REAL STG (MB) - DB2		START FUNCTION	0	READS FROM ACT LOG		23-BUFFER MANAGER	74		
REAL STG (MB) - FREE		START PROCEDURE	0	READS FROM ARCH LOG		24-EDM LRU/BM PREFETCH	2		
VIRT STG (MB) - LPAR		START PROFILE	0	READS DLYD RESOURCES		25-EDM HASH	4		
VIRT STG (MB) - DB2		START RLIMIT	0	READS DLYD TAPE VOL		26-DYNAMIC STMT CACHE	0		
VIRT STG (MB) - FREE		START SUBSYS	0	BSDS ACCESS REQS		27-SP QUEUE AND UDF	0		
		START TRACE	0	CNTL INTVLS CREATED		28-SP OR AUTH CACHE	0		
		START CDDS	7	WR ACT LOG BUF CALLS		29-FIELD PROCS/DDF TM	0		
		START RESTSVC	5	ARCH LOG READ ALLOC		30-AGENT SERVICES	3		
		START DYNQUERYCAPTURE	0	ARCH LOG WRITE ALLOC		31-STORAGE MANAGER	2		
		START ML	0			32-SHARED STORAGE POOL	2		
		STOP ACCEL	0			254-INDEX LATCH	0		

Support for new command counts in IFCID 1

Cont: Statistics Data Trace (BTSTATR1)

VIRT STG (MB) - FREE	STOP ACCEL	0	ARCH LOG WRITE ALLOC	0	254-INDEX LATCH	0
CPU UTILIZATION LPAR	STOP DATABASE	0	CNTL INTVLS OFFLOAD	0		
CPU UTILIZATION DB2	STOP DDF	0	LK AHD TAPE MNT ATT	0	ADDRESS-SPACE MANAGER STATS	
CPU UTILIZATION MSTR	STOP FUNCTION	0	LK AHD TAPE MNT FAIL	0	-----	---
CPU UTILIZATION DBM1	STOP PROCEDURE	0	LOG WRITE SUSPENDS	137	SYNC UNREL SRB	69
PAGE IN RATE - LPAR	STOP PROFILE	0	LOG WRITE I/O REQS	326	SYNC UNREL TCB	17
PAGE IN RATE - DB2	STOP RLIMIT	0	CNTL INTVLS WRITTEN	446	ASYNCR UNREL SRB	0
	STOP SUBSYS	0	SUSPENDED BY XES	0	ASYNCR UNREL TCB	30
	STOP TRACE	0	SUSPENDED BY XES TIME	0.00	SYNC REL SRB	1611
	STOP CDDS	6	SERIAL LOG WRITE REQS	0	SYNC REL TCB	76
	STOP RESTSVC	6	LOG WRTS - WRT THRESH	0	UNAVAIL RESOURCE	0
	STOP DYNQUERYCAPTURE	0	WRITE BUF PAGED-IN	0	ALLOC DEADLOCK	0
	STOP ML	0	DB2 CHECKPT	0	INVALID RESOURCE	0
	RECOVER BSDS	0	CDDS ACCESS REQUESTS	0		
	RECOVER INDOUBT	0	SUCCESS ZHYPERLINK	0		

04/14/20 07:25:59
REQUEST: BTSTATR1
FIRST RECORD 04/08/20 20:06:00

PAGE 9166
DB2 SYS: D12A

New Db2 12 Fast Index Traversal Statistics

New Db2 12 Fast Index Traversal statistics

The following fields were introduced to **IFCID 2/1002** to reflect Fast Index Traversal activity on the system:

- **QISTTRAVMIN** – The minimum number of index traversals that need to occur before fast index traversal is used.
- **QISTFTBCANT** – The total number of indexes that meet the criteria for fast index traversal.
- **QISTFTBCAN** – The total number of indexes that meet fast index traversal criteria when the traverse count is above the minimum.
- **QISTFTBSIZE** – The total amount of memory that is allocated on this data sharing member for fast index traversal.
- **QISTFTBNUMP** – The number of indexes for which fast index traversal was used during the previous in-memory optimization.
- **QISTFTBNUMC** – The number of indexes for which fast index traversal is used during the current in-memory optimization.

Fast Index Traversal statistics

“1” System Statistics → “6” More → “22” Index FTB Optimization (389, 477)

- New report **IDSSFTB** has been introduced and navigation menu adjusted:
 - Former “1 FTB Statistics” became “2 FTB Indexes”
 - Former “2 FTB Summary” became “3 FTB Structures”

```

_  1 FTB Statistics  2 FTB Indexes  3 FTB Structures
R/IDSSFTB          FTB Statistics

Fast Traversal threshold      1000

Eligible indexes
  Identified                  0
  Matching threshold          0

Fast Traversal Blocks created
  In last interval            3
  In current interval          3
Memory used for FTB (MB)      0
```

Request Help

IDSSFTB:
Fast Traversal Blocks (FTB) statistics

Displays statistics about the Fast Traverse Blocks (FTB) usage on a system. The information is refreshed on demand.

Example of use:
Determine how many indexes are eligible for FTB access and compare it to how many indexes were optimized in the last optimization interval.

Fast Index Traversals (AKA Fast Traversal Block Support)

New history reports – HSTSFTB and HSUSFTB

+ several batch reports are updated with the new fields

```
Menu  Print  Tools  Help  CA SYSVIEW for DB2
                             20.0
_  1 FTB Statistics  2 FTB Indexes

R/HSTSFTB      FTB Statistics history

From 04/15/20 00:09:00 To 04/15/20 00:10:01

Fast Traversal threshold      1000

Eligible indexes
  Identified                   0
  Matching threshold          0

Fast Traversal Blocks created
  In last interval            1
  In current interval         1
Memory used for FTB (MB)      0
```

```
_  1 FTB statistics  2 FTB summary

R/HSUSFTB      FTB Statistic History Summary

From 04/15/20 00:00:05 To 04/15/20 04:34:00

Fast Traversal Threshold      1000

Eligible indexes              Average  Minimum  Maximum
  Identified                   0         0         5
  Matching threshold           0         0         5

FTBs created                  2         0         4
Memory used for FTBs (MB)     0         0         0
```

Any Questions...



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New Columns in Db2 12 Explain Table DSN_STATEMNT_TABLE

New DSN_STATEMNT_TABLE Columns

- New supported Db2 12 columns APCOMPARE_STATUS, APREUSE_STATUS, APREUSE_COPYID, APREUSE_VERSION, and EXPLAIN_TYPE.
- Db2 12 introduced improved reporting of access path reuse and compare status versus the old method of examining the columns HINT_USED and REMARKS in the PLAN_TABLE to determine the status for APREUSE and APCOMPARE. Additionally, they made available the package copy ID and version that an access path reused.

CA Plan Analyzer Improvements

- Upgraded access path reports for CURRENT explain to support new columns from DSN_STATEMNT_TABLE.
- Upgraded existing report column explain type by refining CURRENT to show the origin value of AUTO-BIND, BIND, or REBIND explains. Also, the explain type is now present in SQL Statement Detail report.
- Implemented new filter APREUSE Fail in Explain Option Access Path Filters and Identify Problem SQL – Explain Problems. The filter processes SQL statements for which the access path failed or for which no match was found for reuse when the APREUSE option of a BIND or REBIND command was specified.

Enhanced CA Plan Analyzer Reports

The following reports have been updated to include the new or updated columns:

- SQL Statement Detail Report
- Compare Explain Versions Report – SQL Statement Detail Header
- Access Path Reports
- Query Explain Database Reports
- Identify Problem SQL Reports
- PPA Historical Database Information Report (using line command INFO)
- Explain Option Access Path Filters

SQL Statement Detail Report

```
PPA 20.0          ----- PLAN ANALYZER ENHANCED EXPLAIN ----- PAGE      3
DATE 20/02/24      SQL STATEMENT DETAIL REPORTS                      TIME 13:07
```

```
SOURCE DB2 SSID: D12A                                DATE/TIME: 20/02/20, 16:03:56:13
TARGET DB2 SSID: D12A                                SQL CODE  : +0
EXPL TYPE  : REBIND                                  MESSAGE   :
  STMT      : 172                                     (11)
  COLLECTION: SQL_HOSTLANG_COLL
  PACKAGE    : HOSTASM
  VERSION    :
  COPYID     : CURRENT
  HINT USED  : N/A
```

Short Access Path Report – New format

ACCESS PATH ANALYSIS:

COST: (MS) 6	(SU) 209	(TC) +.12481 E+03
APREUSE: SUCCESS	COPYID: PREVIOUS	APCMP: SUCCESS
VERS: 2020-02-04-00.00.00.049363		

PQBKNO: 0	PPLNNO: 0	QBLKNO: 1	PLANNO: 1	MXOPSQ: 0
ACCESS: IXONLY	TSLOCK: IS	PREFET:	QBLKTY: SEL	TBTYPE: TABLE
TB#2 : ANLQA.TSTSEG1				
CORRNM: B				
INDEX : ANLQA.TSTIXSEG1				
MCOLS : 1	DIRECT: FWD			
PLLMOD: QUERY CP	ACDEGR: 0	ACPGRP: 2	SRTNPG:	
HINTUS: APREUSE				
ENCODE: EBCDIC	SCCSID: 500	MCCSID: N/A	DCCSID: N/A	VI_ACT:

Query Explain Database - Explain Summary Report

20.0

PPA QED Explain Summary

2020/02/25 18:42

COMMAND ==>

SCROLL ==> CSR

LINE 7 OF 139 >

Report ==> ES

HVersion ==>

CostFI ==> N

DBOPTS ==> ALL

DBRANGE ==> 001

FILTER ==> N

Collid ==> SQL%

Package ==> HOSTASM

STMTNO ==>

Name ==>

Creator ==>

Type ==>

CARDOA9

Location ==> LOCAL

DB2 SSID ==> D12A

Version ==> 121M500

HVERSION/LEVEL			ARTCE APREUS		MGSCN	NSTLP	HYBRD	TBLSP	
CMD	GROUP/OBJECT/STMT	Type	CVCCT	FAIL	SORTS	JOINS	JOINS	JOINS	SCANS
_____	CARDOA9 APREUSE2	Stra							
_____	V00004								
_____	SQL_HOSTLANG_COLL	(CO)		4	1	-	2	-	2
_____	HOSTASM	(PK)	B	2	1	-	2	-	2
_____	HOSTASM	(PK)	R	1	-	-	-	-	-
_____	HOSTASM	(PK)	B	1	-	-	-	-	-
_____	CARDOA9 APREUSE2	Stra							
_____	V00005								
_____	SQL_HOSTLANG_COLL	(CO)		-	17	-	12	-	41
_____	HOSTASM	(PK) A T	F	-	5	-	4	-	13
_____	HOSTASM	(PK) A T	F	-	6	-	4	-	14
_____	HOSTASM	(PK) A T	F	-	6	-	4	-	14
Press ENTER to process					Press END (PF3/15) to quit **				

Explain Option – Access Path Filters

```
20.0      ----- PPA Explain - Access Path Filter ----- 2020/02/25 18:37:22
COMMAND ==>                                     SCROLL ==> CSR
                                                LINE 75 OF 90
----- CARD0A9
```

Choose one or more elements to search for, joining multiples with OR_ (AND/OR)

Sel Search Element

- _ UNICODE Table(s)
- _ Multiple CCSID Table(s)
- _ Buffers for SELECT from Stmt Type
- _ Common Table Expression
- _ Table Function
- _ Materialized Query Table
- _ Temporary Intermediate Result Table
- _ Recursive Common Table Expression
- _ Subquery (correlated or non-correlated)
- _ Work File
- _ In-memory Table
- _ MERGC
- _ MERGN

S APREUSE Fail <-- New Access Path Filter

***** BOTTOM OF DATA *****

Press ENTER to process

Press END (PF3/15) to quit

PPA Historical Database Information Report

20.0 ----- PPA Database INFO Display ----- 2020/03/05 14:20
COMMAND ==> SCROLL ==> CSR

LINE 38 OF 67

Statement Information:

Statement:	21	Section:	1
StatementI:	21	SectionI:	1
Query No:	21		
Type:	Select	Method:	Static
Optimization Hint			
Sqlcode:			

APCOMPARE Status: S
APREUSE Status: S
APREUSE Copyid: 0
APREUSE Ver: 2020-02-04-00.00.00.049363
Function Level: V12R1M500

Press END (PF3/15) to quit

Db2 11 APPLCOMPAT Support for Future Explains

Db2 11 APPLCOMPAT Summary

In Db2 11, application compatibility was introduced with a new bind parameter APPLCOMPAT and a special register CURRENT APPLICATION COMPATIBILITY. Application compatibility provides the ability to provide SQL application stability when upgrading to a new Db2 release or function level where SQL enhancements may exist, by preventing the use of SQL that was created in a prior Db2 release or function level.

New Enhanced Explain Card APPLCOMPAT

A new enhanced explain card, APPLCOMPAT, allows users to specify application compatibility behavior for catalog and non-catalog SQL during a Future Explain. A Future Explain sets the special register CURRENT APPLICATION COMPATIBILITY based on either a passed-in value or default value before explaining the SQL sources.

Default behavior when APPLCOMPAT is omitted:

- Catalog SQL uses the package APPLCOMPAT bind option.
- Non-catalog SQL uses the APPLCOMPAT setting that was assigned to the CA Plan Analyzer explain application packages during product installation.

New Enhanced Explain card APPLCOMPAT syntax

APPLCOMPAT = (*function-level* | V11R1|V10R1)

- *function-level* specifies the application compatibility behavior. It applies to Db2 12 and beyond where the format uses the following definition for VvvRrMmmm:

vv - Db2 version

r - Db2 release

mmm - Db2 modification level

- V11R1 applies the compatibility behavior for V11R1.
- V10R1 applies the compatibility behavior for V10R1.

PPA Batch Processor Card Display

```
20.0      ----- PPA Batch Processor Card Display ----- 2020/03/10 12:40
COMMAND ==>                                         SCROLL ==> CSR
                                         LINE 1 OF 19
                                         Mode ==> 0 ONLINE
```

The following Batch Processor input has been generated. Press ENTER
to process, press END to cancel, or enter the EDIT command to edit.

```
----- userid

***** TOP OF DATA *****

.CALL EXPLAIN
.DATA
  RULESSID    = (D12A)
  ACM         = (N,userid)
  STRATEGY    = (D12A,APPLCMP3,userid,@AUTO)
  PLANTAB     = (ROLLBACK)
  LINES       = (67)
  PROCDDF     = (N)
  FLOATFMT    = (SCI)
  SAVEHOST    = (Y)
  APPLCOMPAT  = (V12R1M504)
  EXPLTYPE    = (FUTURE)
  ISOLATE     = (CS)
  TARGET      = (D12A(@DEFAULT))
  REPORT      = (ACCESS/SHORT,COST,DEPENDENCY/SHORT,PREDICATE,PREDRULE,
                SQLRULE,SUMMARY)
  SRCPACK     = (D12A,LOCAL,APPLCOMPAT,, 'VERS()')
.ENDDATA

***** BOTTOM OF DATA *****
```

New Column in Db2 11 SYSPLAN Table

New SYSPLAN Column

Db2 11 has introduced an additional column in SYSIBM.SYSPLAN:

- PROGAUTH - Indicates whether Db2 performs program authorization checking to determine whether it can execute a plan.

Enhanced CA Plan Analyzer Reports

The following reports have been updated to include the new column:

- Plan List
- Plan Detail
- Plan Utilities
- Identify Problem Plans

Plan List Report with the New PROGAUTH Column

20.0 PPA Plan List 2020/03/16 17:55
COMMAND ==> SCROLL ==> CSR
 LINE 1 OF 88 <

Option ==> P Report ==> L
Name ==> PPA% Creator ==> * Where ==> N
----- *userid*
Location ==> LOCAL DB2 SSID ==> D11B Version ==> V11CM

CMD	PLAN	ROUNDING	LAST USED	CONCURRENTACCESSRESOLUTION	PROGAUTH
___	PPADD18B	HALF_EVEN			DISABLE
___	PPADD190	HALF_EVEN			DISABLE
___	PPADD200	HALF_EVEN			ENABLE
___	PPADF170	HALF_EVEN			DISABLE
___	PPADF999	HALF_EVEN			DISABLE
___	PPADI17	HALF_EVEN			DISABLE
___	PPADI999	HALF_EVEN			DISABLE
___	PPADP00D	HALF_EVEN			DISABLE
___	PPADP18B	HALF_EVEN			ENABLE
___	PPADP190	HALF_EVEN			DISABLE
___	PPADP200	HALF_EVEN			DISABLE
___	PPADP999	HALF_EVEN			DISABLE
___	PPADQ18B	HALF_EVEN			DISABLE
___	PPADQ190	HALF_EVEN			DISABLE
___	PPADQ200	HALF_EVEN			ENABLE
___	PPADRDAT	HALF_EVEN			DISABLE
___	PPADRSB1	HALF_EVEN			DISABLE
___	PPADR170	HALF_EVEN			DISABLE
___	PPAMF999	HALF_EVEN			DISABLE

Plan Detail Report with the New PROGAUTH Field

```
20.0      -----      PPA Plan Detail      ----- 2020/03/16 18:03
COMMAND ==>
                                         SCROLL ==> CSR
                                         FRAME 1 OF 88

Option  ==> P      Report  ==> D
Name    ==> PPA%   Creator ==> *      Where ==> N
----- userid
Location ==> LOCAL      DB2 SSID ==> D11B      Version ==> V11CM

***** TOP OF DATA *****
_____ PLAN NAME: PPADD18B      BIND DATE: 2016/03/21
      VALID: YES      BIND TIME: 09:57:36
      CRTR TYPE: AUTH-ID      LAST USED:
      CREATOR: userid
      BOUND BY: userid
      QUALIFIER: userid

      VALIDATION: RUN      ISOLATION: CS      OPERATIVE: YES
      ACQUIRE: FIRST USE      RELEASE: COMMIT      EXPLAIN: NO
      DEGREE: 1      SQLRULES: DB2      DISCONNECT: EXPLICIT
GROUP MEMBER:      DYNAMICRULES:
      REOPTVAR: NONE      KEEP_DYNAMIC: NO      DEFERPREPARE: NO
      ROUNDING: HALF_EVEN      CONCURACCRES:

      DBPROTOCOL: DRDA      FUNCTIONTS: 2016-03-21-09.57.36.321532
      OPTHINT:
      IMMEDIATEWRITE: NO      ENCODING_CCSID: 5035      RELBOUND: V11

      PLENTRIES: 11      BASE SIZE: 3,744      CACHESIZE: 3,072
      SYSENTRIES: 0      AVERAGE SIZE: 0      PROGAUTH: DISABLE

CURRENT SERVER:      CURRENT DATA: NO
```

SQL Parser Built-In Function Support

V12R1M505 New Built-In Functions

The SQL parser in CA Common SQL Services for Db2 for z/OS now supports the following new built-in scalar functions:

- ENCRYPT_DATAKEY
- DECRYPT_DATAKEY_BIGINT, DECRYPT_DATAKEY_BIT, DECRYPT_DATAKEY_CLOB, DECRYPT_DATAKEY_DBCLOB, DECRYPT_DATAKEY_DECIMAL, DECRYPT_DATAKEY_INTEGER, DECRYPT_DATAKEY_VARCHAR, DECRYPT_DATAKEY_VARGRAPHIC

V12R1M506 New Alternate Names for Built-in Functions

The SQL parser in CA Common SQL Services for Db2 for z/OS now supports alternate names for the following pre-existing built-in functions:

PRE-EXISTING FUNCTION NAME	ALTERNATE FUNCTION NAME
COVARIANCE or COVAR	COVAR_POP
CHARACTER_LENGTH	CHAR_LENGTH
CLOB	TO_CLOB
HASH_MD5, HASH_SHA1, or HASH_SHA256	HASH
LEFT	STRLEFT
POSSTR	STRPOS
POWER	POW
RAND	RANDOM
RIGHT	STRRIGHT
TIMESTAMP_FORMAT or TO_DATE	TO_TIMESTAMP

Any Questions...



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Report Facility and Sysview for Db2

Andrew Badgley

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Future Requirement for a Persistent Xmanager Started Task

The Challenge

- Continuous Delivery model requires new functionality to be disabled by default when possible.
- Not all new functionality can be disabled using Panel fields, Parmlib options, or Syntax keywords

The Solution

- Start generating Level Set PTFs that increment the modification value of the product version string (20.0.mm)
- Start delivering new functionality that can be activated based on the product version string.

ACTIVATE LEVELSET(20.0.mm)

The Catch

- Activated Level Set information will be maintained by the Xmanager Started tasks.
- In order to use Report Facility or Sysview for Db2 a running Xmanager Started task will be required. (All other CA Db2 Tools products already have this requirement)

Any Questions...



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Topics for next Customer Update

Log Analyzer - javier.estradabena@broadcom.com

- Recovering dropped LOB objects with Dropped Object Recovery
- Generating DCL reports
- Generating Package activity reports

In Closing...

Upcoming Events

- [Mainframe Technical Exchange Lisle](#): ~~August 25-27, 2020~~ <tb>*
• [Mainframe Technical Exchange Prague](#): ~~September 22-24, 2020~~ <tb>*

* Please watch the Communities site for announcements.

CA Db2 Tools 20.0 Validation Project

- <https://validate.broadcom.com/key/DB2Tools200>



Thank You