



CA Datacom® Version 15.1 New Features and Enhancements

May 6, 2020

Introductions

- Sheila Miller – Product Manager
- Dale Russell – Product Owner
- Joe Lynn – Software Engineer
- Justin Crist – Software Engineer
- Dick Williamson – Software Engineer

Agenda

- CA Datacom Current State
- CA Datacom/DB Multi-User Facility Simplification
- Recent SQL Enhancements
- General Updates
- Q&A



CA Datacom Current State

Dale Russell

Current z/OS PAX files

- CA Datacom Core Products 15.1
 - Service Update S1909 PAX
- CA Datacom CICS Services 15.1
 - GA Complete PAX
- CA Datacom Server 15.0
 - Service Update S1902 PAX
- CA Ideal 15.1
 - GA Complete PAX
- CA IPC 15.1
 - GA Complete PAX
- CA Datacom VSAM Transparency 14.0
- CA Datacom DL1 Transparency 12.0
- CA Datacom/AD 15.1
 - Based on Core Products S1909, CA IPC 15.1 GA Complete, CA Datacom Server 15.0 S1902
 - GA as of January 30, 2020

Current z/VSE PAX files

- CA Datacom Core Products 12.0
- CA Datacom CICS Services 12.0
- CA Datacom Server 11.0
- CA Ideal 11.0
- CA IPC 11.0
- CA Datacom VSAM Transparency 2.1
- CA Datacom DL1 Transparency 2.3

Current maintenance

- CA Recommended Service (CA RS) for z/OS
 - CARS2004 (delivered yesterday) – PTFs published in March and tested in April
- Update: Support for IBM CTS 5.6 for z/OS (currently in IBM open beta)
 - Solutions published – IPC 15.0/15.1, DBC 150.0/15.1, DBDT 12.0
 - Still outstanding – DBVT 14.0
 - Reference FIXCAT HOLDDATA to get all solutions for CA Mainframe products
 - CA.TargetSystem-RequiredService.CICS.V5R6

End of Support Status Review

- z/OS CA Datacom **Core Products** 15.0 EOS has been announced: March 31, 2021
 - CA Datacom/DB
 - CA Datacom Datadictionary
 - CA Dataquery for CA Datacom
 - CA Datacom SQL
 - CA Datacom Fast Restore
- In addition:
 - CA Datacom CICS Services
 - CA Datacom Presspack
- In view of COVID-19, further End of Support (EOS) announcements will be on hold for now

CA Datacom Current State

➤ Questions?



CA Datacom/DB MUF Simplification

Joe Lynn

CA Datacom MUF Parameter Simplification

Delivered



Use Case:

As a CA Datacom DBA or Systems Programmer, I want a simplified way to understand the MUF options and how to use them in order to be more productive and take advantage of new features.

Simplify

- ✓ Increased productivity: Allows focus on priorities, not researching parameters
- ✓ New defaults taken when best practices are known
- ✓ Reduces learning curve for a new DBA or Systems Programmer

CA Datacom MUF Parameter Simplification

- Some parameters should be used in all environments
- What was a good value several years ago may not be the best today
- Users may not always know how to choose the best value for their environment
- Over time, Datacom can determine the best practice value

Framework for New-Updated-Deprecated Parameters

Overview of Concept

- Part 1 - Ignoring and forcing
- Part 2 - Changed defaults
- Part 3 - Other types of MUF changes
- Part 4 - Changes not MUF options

Overview of Concept

- Many clients -
 - Have time constraints
 - Lack Datacom knowledge
 - Lack authority to change MUF
- Slow MUF executions are not best for clients or Datacom
- MUF environments running similar to QA regression is much safer
 - Rarely used and obscure options are less often and/or less rigorously tested
 - Better regression with less options ensures solutions have no harm

Part 1 – Ignoring and Forcing

- Startup option set as ignored
 - Documented as ignored and not in effect
 - X_CXX_ALLOW_SHARING - forced as NO

- Startup options forced at a value
 - Documented as forced to a value and so not an option
 - DATASPACE - forced at 2g
 - NONSWAP - forced as YES

Part 2 - Changed Defaults

- Startup options that have new defaults, but not forced
- LOGPEND - New default 5000
- AREA_EXTENT_TRACKING - New default 7
- DYNAMIC_EXTEND_RETRY - New default to '80,60,40'
- SMPTASK - New default '1,1,4'
- VTOC_DATE_DAILY - New default YES

Part 3 - Other Types of MUF Changes

- Startup option changes not ignored forced or default change
- LOGPEND - force 0-4999 up to 5000
- BREAK - force 2-49 up to 50 (console-like still range 2-2500)
- SMPTASK - force to at least '1,1'
- SMPTASK - force 21-99 down to 20
- PXXSTATS - option not changed, but action PXXSTATS=EOJPRT always done
- SMPTASK_USING_IEAV - if not set YES
 - If SRB mode and other modules at 'right' APAR activates as hybrid YES

Part 4 - Changes Not MUF Options

- Data area DSOP
 - DSOP 2 accepted by DDUPDATE and DBUTLTY CXXMAINT but forced to '4'
- URI reuse accepted by DDUPDATE and honored
 - Except if high URI is already 3g or more forced reuse
 - Except if rows added to URI 3g forced reuse

Summary

- Others will be considered going forward – feedback encouraged

CA Datacom/DB MUF Simplification

➤ Questions?



Recent SQL Enhancements

Justin Crist

Dick Williamson

DBSQLPR: Output message severity CC based on message(s) issued

- Old method returned highest severity message as the CC.
- New method returns CC based on severity of messages received
 - CC=0 – No messages
 - CC=4 – Warning level messages
 - For example, RC 2015 - WARNING: DUPLICATE '<option>' SPECIFICATION IGNORED
 - CC=8 – Error level messages
 - For example, -14 - TABLE/VIEW DOES NOT EXIST

CA Datacom SQL Syntax Enhancements

Delivered



Use Case:

As an SQL application developer, I want additional, industry standard SQL language syntax in order to be able to develop and maintain my applications using CA Datacom/DB mainframe data.

Open

- ✓ Increased productivity: SQL features match industry standards
- ✓ Allow open access from new applications
- ✓ Reduces learning curve for a new DBA or Systems Programmer

CA Datacom SQL Additional Syntax

- Allows increasing sophistication in coding
- Promotes standardization of coding across multiple DBMS platforms
- Reduces concern over any limitations of syntax

SUBSTRING_INDEX Scalar Function

- SO10328 SUBSTRING_INDEX Scalar Function Enhancement
- Returns a substring of a string before a specified number of occurrences of a delimiter has been found
 - Generic form: SUBSTRING_INDEX(*source_string*, *delimiter*, *occurrence*)
 - If any of the parameters are NULL, the result is NULL
 - Occurrence can be any non-zero integer
 - must be an INTEGER or SMALLINT
 - If Occurrence is Positive searches through *source_string* forwards
 - If Occurrence is Negative searches through *source_string* backwards
 - Returns whole string if *delimiter* appears less than value of *occurrence*

SUBSTRING_INDEX Scalar Function

```
INPUT STATEMENT:  
INSERT INTO T2170V2 VALUES ('WWW.CA.COM', NULL, NULL);  
  
____ SQLCODE=0, SQLSTATE=00000, ROWS AFFECTED=1 ____
```

```
INPUT STATEMENT:  
SELECT SUBSTRING_INDEX(SUBSTRING_INDEX(COL1, '.', -2), '.', 1) FROM T2170;  
  
SUBSTRING_INDEX(SUBSTRING_INDEX  
VARCHAR(25)  
_____  
CA  
____ 1 row returned ____
```

TIMESTAMPDIFF Scalar Function

- SO10335 Enhancement: Subtract Timestamp Scalar Function
- Returns the difference between two datetime values.
 - Generic form: `TIMESTAMPDIFF(units, time-date-value1, time-date-value2)`
 - Units can be:
 - MICROSECOND
 - SECOND
 - MINUTE
 - HOUR
 - DAY
 - WEEK
 - MONTH
 - QUARTER
 - YEAR
 - DATE values are treated as TIMESTAMPS at time 0
 - 2019-03-24 is treated as 2019-03-24-00-00-00.000000
 - Valid datetimes start at January 1, 0001
 - If either date-time value is null, the result is null

TIMESTAMPDIFF Scalar Function

```
INPUT STATEMENT:  
SELECT TIMESTAMPDIFF(DAY, '2019-07-04-12.00.00.000000', CURRENT DATE)  
FROM T2179;  
  
TIMESTAMPDIFF(DAY, '2019-07-04-1  
                DEC(31,0) NOT NULL  
  
_____ 301  
___ 1 row returned ___
```

Labeled Durations in Source Cache (SO10467)

- The Source Cache eliminates the bind process and provides query statistics for tuning
- Literals are converted internally to parameter markers for better matching
- A few syntax variations not eligible because literals are converted at bind time and not available to be replaced with current values
- Labeled Durations are now eligible for the Source Cache

Auto-Close of Cursors for Server (SO11192)

- When the last row of a cursor is about to be returned on a FETCH, the cursor is automatically closed.
- For Server ODBC and JDBC only
- Not for scroll cursors
- Reduces MUF memory (especially with connection pooling)

Recent SQL Enhancements

➤ Questions?



General Updates

Sheila Miller

Are You Participating?

CA Communities Ideation

- Submit your ideas on communities.broadcom.com
- Vote and comment on ideas that are important to you
- CA Product Management reviews ideas and updates status as they move through the lifecycle
- “Currently Planned” idea status indicates inclusion in Agile Backlog or Product Roadmap

Customer Validation

- Register to participate in:
 - Live Demos / End-of-Sprint Review meetings
 - Private - Members Only - Online Community
 - Pre-Complete Release Feature Testing and Support
 - Upgrade Support From SWAT Team
- How to register: validate.broadcom.com

*** Please Note:** Broadcom systems migration effort requires that all members register on the new platform [CA Datacom CADRE Community](https://communities.broadcom.com)

Upcoming Events

- [Webcast: CA Datacom Product Roadmap](#)
 - June 18, 2020 @ 11:00 (EDT)

- [Event: Broadcom Mainframe Technical Exchange](#)
 - Prague, Czech Republic: September 22 - 24, 2020 (NEW DATE)

- [Event: CADRE/CA Datacom Technical Conference](#)
 - Addison Texas: October 26-30, 2020 (NEW DATE)

Introducing Broadcom Digital Badges

- Credly Digital Badging Platform

➤ [Broadcom Page](#)



- CA Datacom

• [CA Datacom® - Database Key Concepts](#)



Closing

➤ Questions?



Thank You

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