

Bits and Pieces

IDUG Europe 2006

Problem med Å, Ä, Ö

Timestamp som Primary Key

Explain utan behörighet



Photo Tour

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Rome Marriott Park Hotel

Hotel Exterior

Hotel in the Park

Marriott.
ROME PARK

▼ **Hotel Views**

[Hotel Exterior](#)

Events & Meetings

Problem med Å Ä Ö

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Vad är problemet

- Hantering av Å Ä Ö
 - Upper och Lower
 - Sortering

Upper och Lower

- Upper eller Ucase
 - ”översätter” till stora bokstäver
- Lower eller Lcase
 - ”översätter” till små bokstäver
- Fungerar ej med Å Ä Ö

CURRENT LOCALE LC_CTYPE

- DB2 Special Register
- SET CURRENT LOCALE LC_CTYPE = 'Sv_SE'
- Default värde kan sättas i DSNZPARM
– (panel DSNTIPF, LC_TYPE)

Swedsort

- En Field Procedure som används för att få Å Ä Ö på rätt plats
- Problem
 - Vid Like-sökning används inte index
 - Vid Join måste båda kolumnerna ha samma Field Procedure

Translate

- Translate kan användas i Order By
- Select Name
From Name_Table
Order By
Translate(Name, X'EAEBEC','ÅÄÖ')

SQL User Defined Function

- Create Function SortÅÄÖ(In Varchar(255))
Returns Varchar(255)
No External Action
Return (Translate(In, X'EAEBEC','ÅÄÖ'))
- Select Name
From Name_Table
Order By SortÅÄÖ(Name)

Timestamp som Primary Key

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Vad är problemet?

- Current Timestamp är inte alltid unik
 1. Snabb maskin – eller Sysplex
 2. Insert into mytab
Select Current Timestamp, xxx, xxx
From sometab
 3. Inuti trigger eller UDF

Generate_unique()

- En funktion som returnerar ett garanterat unikt värde (APAR PQ70901)
- CHAR(13) For Bit Data
- 10 tecken timestamp + ytterligare 3 tecken
- Timestamp(g_u_data) är möjligt

Timestamp(generate_unique())

- Timestamp(generate_unique()) returnerar en timestamp som är garanterat unik
- Värdet är baserat på UCT (f.d. GMT)
- Timestamp(generate_unique()) + Current Timezone ger unik lokal tid

Explain – utan behörighet

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Vad är problemet?

- För att göra Explain mot en tabell, måste man ha motsvarande behörighet

Visual Explain

Visual Explain

Subsystem Tools Plugin Properties Windows Help

Tune SQL EDUCDB2P

File Edit Action View

SQL Text Access Plan Execution Result Report Statistics Advisor

QueryNo: 2 SQLID: SECG382

Command history

Command history category: default

Create New Category Rename Category Delete Category

Name	SQL Statement	Comm
Q2	select * from emp...	This query was saved at 2005-nov-14 13:30:53
Q2	select * from emp...	This query was saved at 2005-nov-14 13:31:06
Q2	select * from emp...	This query was saved at 2005-nov-14 13:33:12
Q2	select * from emp...	This query was saved at 2005-nov-14 13:35:34
Q2	select * from mqt...	This query was saved at 2005-nov-14 13:36:21
Q1	select workdept,c...	This query was saved at 2005-nov-14 13:45:33
Q1	select workdept,c...	This query was saved at 2005-nov-14 13:46:06
Q1	select workdept,c...	This query was saved at 2005-nov-14 13:46:35
Q1	select workdept,c...	This query was saved at 2005-nov-14 13:47:06
Q1	select workdept,c...	This query was saved at 2005-nov-14 13:47:19
Q1	select workdept,c...	This query was saved at 2005-nov-14 13:47:42
Q1	select workdept,c...	This query was saved at 2005-nov-14 13:48:07
Q1	select workdept,c...	This query was saved at 2005-nov-14 13:48:24
Q1	select workdept,c...	This query was saved at 2005-nov-14 13:48:34
Q1	select workdept,c...	This query was saved at 2005-nov-14 13:49:11

Up Down

Update Name Update Statement Update Comment

Change Category Copy to Category Delete Statement

Automatically save SQL in current command history category

Current degree: System default

Current refresh age: 0

Current maintained table types: None

Table qualifier for EXPLAIN stored procedure:

Input an SQL statement or select one from command history:

Messages for Execution and Explain

Explain with stored procedure Explain Execute

Analyze Help

DSN8EXP

- Stored Procedure som kan anropas från Visual Explain (APAR PQ90022)
- C-problem (#pragma) vid installation
- Källkod tillgänglig – Dynamisk SQL
 - Set Current SQLID
 - Explain

SPEXplain

- Baserad på DSN8EXP
- Parametrar
 - SQL-sats
 - SQLID eller NULL (Current SQLID)
 - Queryno eller NULL (999999999)

SPEexplain - kodning

```
CREATE PROCEDURE SPEexplain
  (in  pi_sqlstmt varchar(30000)
  ,in  pi_sqlid   char(8)
  ,in  pi_queryno smallint)

p1: begin
  Declare v_sqlstmt varchar(32000);
  Set v_sqlstmt = 'Set Current SQLId = '''
    concat pi_sqlid concat '''';
  Execute immediate v_sqlstmt;
  Set v_sqlstmt = 'Explain all set queryno = '
    concat char(pi_queryno)
    concat ' for ' concat pi_sqlstmt;
  Execute immediate v_sqlstmt;
end p1
```

Hur fungerar det?

- SPExplain "ägs" av SYSADM
- SPExplain binds med
 - Dynamicrules(Bind)
- Grant Execute on Procedure SPExplain to Public

Alternativa lösningar

- I stället för en Stored Procedure kan man givetvis skriva ett COBOL-program med motsvarande funktionalitet

SPEexplain - fullständig

```
p1: begin
  Declare v_sqlstmt varchar(32000);
  Declare v_queryno varchar(10);
  If pi_sqlid is not null then
    Set v_sqlstmt = 'Set Current SQLId = '''
      concat upper(pi_sqlid) concat '''';
    Execute immediate v_sqlstmt;
  End if;
  Set v_queryno = '999999999';
  If pi_queryno is not null then
    Set v_queryno = char(pi_queryno);
  End if;
  Set v_sqlstmt = 'Explain all set queryno = ' concat v_queryno
    concat ' for ' concat pi_sqlstmt;
  Execute immediate v_sqlstmt;
end p1
```