



Why You Should Move to CA 2E SQL Now!

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About Your Presenter – Jason Olson

- IBM i Professional for 15 Years.
- Primary Focus is IBM i Engineering / Programming
- Well Versed in 2E.
- Well Versed in RPG (All Flavors)
- Well Versed in CM Products such as Implementer
- Up to Date on Newest SQL/RPG Enhancements.

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Agenda

- What Exactly is SQL (Just in case you don't know. 😊)
- Benefits of Moving to SQL Created Objects
- SQL Performance Benefits
- Application Demo – Multimedia Files

What exactly is SQL?

- SQL Stands for Structured Query Language.
- Developed at IBM in the Early 1970s.
- Consists of a DDL (Data Definition Language)
 - IE, CREATE TABLE, CREATE INDEX
- Consists of a DML (Data Manipulation Language)
 - IE, INSERT INTO, UPDATE, DELETE,
- To a Large Extent Consists of Simple English Statements.

Benefits of Moving to SQL Created Objects

- Whole World Uses SQL. New resources are more familiar with SQL than DDS.
- Long Field Names are Available to Outside World. YAY! 😊
- Performance (Further discussion later)
- Data is Validated when Written to the Database.
- DDL Defined Indexes use a 64K page size vs 8K used by Logical Files.
- Null Capable Fields.
- New Data Types (Blob, Clob, Lob) Demo of this!

Benefits of Moving to SQL Created Objects

- No Enhancements to DDS Language.
- Constraints are Built into Database.
- Built in Encryption.
- Easier Modification of Table Layouts.
- RPG Programs that Use SQL Access Don't Need a Re-compile.
- Automatic Identity Columns.

SQL Performance

- In DDS Data is Validated When *Read*. In SQL Data is Validated When *Written*.
- This is Important as we Normally do many more reads vs. writes. Ratio could be as high as 25 to 1.
- Data Can Arrive up to 11 Seconds Faster. Especially Helpful When Loading up Subfiles from Random Keys.
- Concurrent Write Support.
- Logical Page Size of 64K.

Application Demo – Multimedia Files

- Use BLOB data type of store binary data.
- SQL Only Data Type! (No DDS Support)
- BLOBs can be up to 2GB in size! YAY!
- Created As Column In Table Definition.
- Can Store ANY Binary Data (Files, Audio, Emails, .EXE Files)
- Cannot Be Modified Outside of Program. (NOT in IFS)
- Takes Advantage of IBM i Security.
- Automatic Replication to Target HA System.

DEMO!



Questions?

Comments?

THANK YOU!

THANK YOU!

