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WG3

SC32 Tutorial Day
2000-10-09

WG3
Database Languages

Current Projects

- 1.32.3.4 — “SQL3” ⇒ SQL:1999
 - 9075-1 — SQL/Framework
 - 9075-2 — SQL/Foundation
 - 9075-3 — SQL/CLI
 - 9075-4 — SQL/PSM
 - 9075-5 — SQL/Bindings
 - 9075-9 — SQL/MED (FDIS)
 - 9075-10 — SQL/OLB (in publication)
 - 9075-1/Amd.1 — SQL/OLAP (in publication)

Current Projects

- 1.32.3.5 — SQL:200*n* (not “SQL4”)
 - 9075-1, -2, -3, -4 as in SQL:1999
 - 9075-5 merged with 9075-2
 - 9075-11 — SQL/Schemata (split out of 9075-2)
 - 9075-7 — SQL/Temporal
 - Proposed:
 - SQL/Replication (awaiting candidate base WD)
 - SQL/JRT (proposed at this meeting)
 - SQL/XML (proposed at this meeting)

SQL/JRT

- Subproject split: SC32 N00509
- Merger of SQLJ Part 1 (*SQL Routines Using the Java™ Programming Language*) and SQLJ Part 2 (*SQL Types Using the Java™ Programming Language*)
- SQLJ Group (pseudo-consortium)
- NCITS 331.1 and NCITS 331.2
- NCITS = National Committee for Information Technology Standards (in USA)

SQL/JRT

- Part 1: SQL Routines Using the Java™ Programming Language

- `CREATE FUNCTION stars2 (INTEGER) RETURNS
VARCHAR(10)
EXTERNAL NAME
 'cinema_jar:Cinema.Movie.stars2'
LANGUAGE JAVA PARAMETER STYLE JAVA`
- `public static String stars2 (int rating) {
 String result = "";
 while (rating-- > 0) {
 result += "*";
 }
 return result; }`

SQL/JRT

- Part 2: SQL Types Using the Java™ Programming Language

```
- CREATE TYPE sqlj_movie
  EXTERNAL NAME 'cinema_jar:Cinema.Movie'
LANGUAGE JAVA
( title VARCHAR (60) EXTERNAL NAME 'title',
  length INTEGER EXTERNAL NAME 'length',
  descr VARCHAR (60) EXTERNAL NAME 'descr',

METHOD sqlj_movie (p1 VARCHAR (60),
                   p2 INTEGER, p3 VARCHAR (60))
  RETURNS sqlj_movie
  EXTERNAL NAME 'Movie' )
```

SQL/JRT

WGG3

```
- public class Movie implements  
  java.io.Serializable {
```

```
    public String          title;  
    public int            length;  
    public String        description;
```

```
    private Hashtable votes = new Hashtable();
```

WGG3

SQL/JRT

- Currently being prepared (merger of two source documents, restated using SQL standards style)
- Phil Shaw and Chris Farrar (long-time SQL standards participants who are preparing the document)
- WG3:HEL-042 is snapshot of translation

SQL/XML

- Subproject split: SC32 N00536 (a/k/a N00510R1)
- XML \Rightarrow eXtended Markup Language (an implementation of SGML)
- W3C \Rightarrow World-Wide Web Consortium
- XML Schema Working Group
- XML Query Working Group

SQL/XML

- Subproject split proposal suggests:
 - Specifications for the representation of SQL data (specifically rows and tables of rows, as well as views and query results) in XML form, and *vice versa*.
 - Specifications associated with mapping SQL schemata to and from XML schemata.
 - Specifications for the representation of SQL Schemas in XML.
 - Specifications for the representation of SQL actions (insert, update, delete).
 - Specifications for protocols related to the transport of XML when used with SQL.
 - Specifications of the (perhaps “a”) manner in which SQL language can be used with XML.

SQL/XML

- SQLX Group and **sqlx.org**
- Meets approximately monthly (alternating face-to-face and telephone meetings)
- Operates much like SQLJ Group
- Expected to submit “complete” change proposals to NCITS H2, which will submit them in turn to SC32/WG3
- Goal: Operate in “webtime”

SQL/XML

- Cooperate with W3C wherever relevant
- *Do not conflict with W3C!*
- Preserve industry investment in SQL
 - Use SQL for traditional data, plus...
 - Use SQL for XML data
- Use SQL and XML “together”
- XML data model vs SQL data model
- SQL/MM Full Text considerations

SQL/XML

- Active work in SQLX Group:
 - Publishing SQL data in XML form — several variant approaches being proposed & explored
 - Relationships between XML schema and SQL schema — several variant approaches: annotated XML schema, default mappings, etc.
 - Possible SQL-based syntax to implement W3C Query WG algebra
- **Everybody has a position!**

SQL/XML

- Unanswered (and not yet answerable!)
question: One part or multiple parts?
- Subproject split proposal assumes that one document will result, but several factors may influence the decision:
 - Timing of specification completion
 - Closeness of relationships among aspects
 - Controversy that might affect balloting
- If required, new subproject splits...

W G 3

QUESTIONS?

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