Joe Celko - Articles

- Member of ANSI X3H2 since 1987
- SQL for Smarties - DBMS Magazine
- Celko on SQL - DBP&D
- SQL Puzzle - Boxes & ArRecords
- DBMS/Report - Systems Integration
- WATCOM SQL Column - PBDJ
- Celko on Software - COMPUTING(UK)
- Celko - Intelligent Enterprise
- SELECT FROM Austin - DB/M (Netherlands)
Joe Celko - Books

- Instant SQL (Wrox Press)
- SQL Puzzles & Answers - 1997
- Data & Databases - 1999
- Trees & Hierarchies in SQL - 2003
- SQL Programming Style - 2005
- Analytics & OLAP in SQL - 2006
• Derived Tables are “virtual tables”

• They are created in a statement on the fly
  - They do not exist in the schema

• When a Derived Table is defined and named in a FROM clause, it is materialized and used
  Well, not always. Sometimes the definition is put into the statement’s parse tree, like an in-line macro
  The names of the table(s) used to build it are no longer exposed
Derived Tables -2

- `<query expression> [AS] <derived table name> [(<derived table column list>)]`

- This syntax appears in a FROM clause wherever a table name could

- Think of it as a VIEW that is built on the fly inside the query

- The `[(<derived table column list>)]` is optional and the derived table will inherit the column names from the `<query expression>`
  - Can be ambiguous, so always give a list
Example: without derived table

- SELECT Foo.a, (Bar.b - Bar.d) AS k1
  FROM (SELECT a, b, c+1 AS d
        FROM Foo, Bar
        WHERE q = r)

Foo and Bar are exposed and can be referenced in the containing query expression.
Example: without derived table

- SELECT Foo.a, (Bar.b - Bar.d) AS k1
  FROM (SELECT a, b, c+1 AS d
        FROM Foo, Bar
        WHERE q = r)

Foo and Bar are exposed and can be referenced in the containing query expression.
Derived Tables -4

- Example: without derived table

  - SELECT Foo.a, (X.b - X.d) AS k1
    FROM (SELECT a, b, c+1 AS d
           FROM Foo, Bar
           WHERE q = r) AS X (a, b, d)

- Foo and Bar are NOT exposed and cannot be referenced in the containing query expression.
Common Table Expressions -1

- Part of SQL-99

```
WITH <name> [(<column list>)]
AS <select statement>
[, <name> [(<column list>)]
AS <select statement>]
<select statement>;
```

- Can be recursive