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OpenText Gupta SQLBase 12.2

#lowTCO #embeddable #database for #Windows and #Linux

November 2019, Martin Teetz

SQLBase 12.2 Agenda

- Features & benefits of SQLBase 12.2
  ◦ Easy maintenance, SQL testing and data maintenance: Much enhanced SQLTalk Plus
  ◦ SQL language enhancements
  ◦ Cross platform .NET Core application support
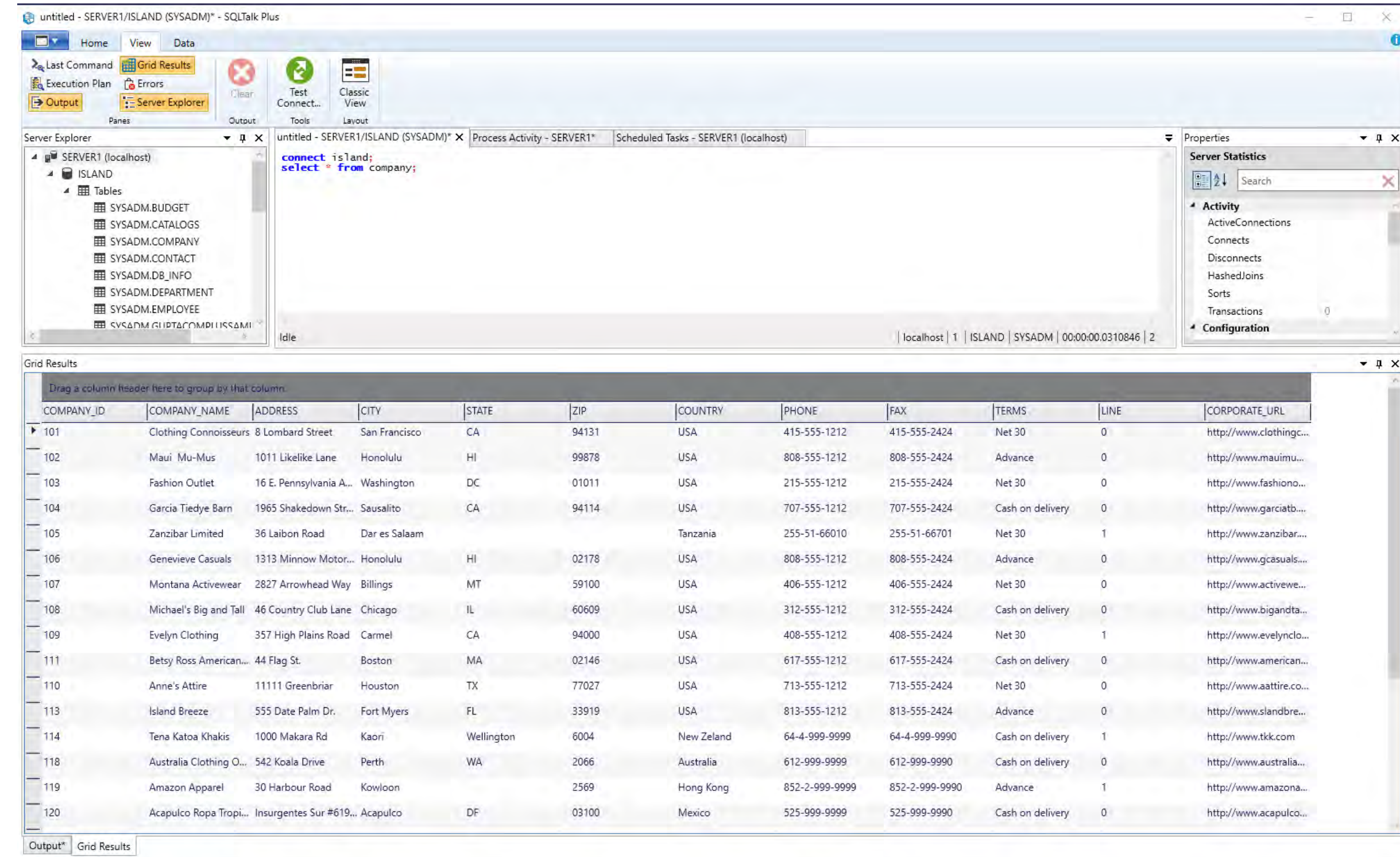 ◦ New Server console
- SQLBase 12.2 demo
- Q&A

Easy server maintenance, SQL testing and data maintenance: Much enhanced SQLTalk Plus
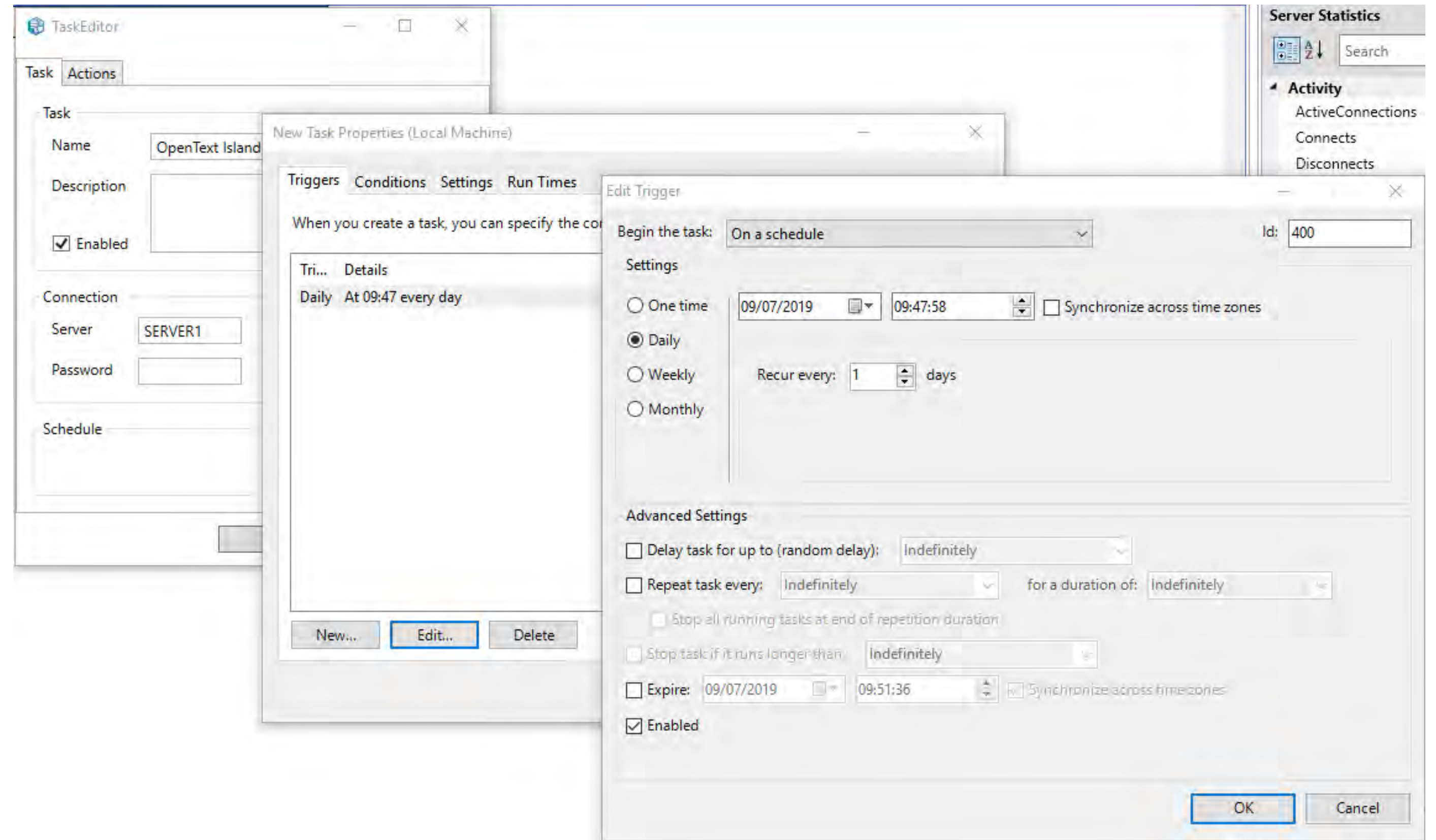
SQLBase 12.2

SQLTalk Plus Overview

- **One place for all things SQLBase**

- Modern MDI interface, updated technology

- Server and database maintenance
  - Task scheduling
  - Database auditing
  - Server, database and user statistics
  - Server process activity log

- SQL testing and scripting

- Grid data editing

SQLTalk Plus Task Scheduling

- Schedule and maintain database maintenance tasks

- Based on Windows Task Scheduler

- No SQLBase task service or task database needed

Windows Task Execution Issue Notification

- Schedule a task in Windows Task Scheduler to get notified on errors

SQLTalk Plus Database Auditing

- Detect performance bottlenecks, database issues and find solutions

SERVER1: Audit Options ×

Audit Types

	Types	Description
✓	Rejected logons	Records unsuccessful login attempts. Useful to s
✓	Security violations	Tells you if a user tried to access data without p
✓	Valid logons/logoffs	Records all valid logons, telling you when a user
✓	Valid connects/disconnect	Records CONNECT and DISCONNECT statemen
✓	Database operations	Records CREATE DATABASE, DROP DATABASE, I
✓	Recovery operations	Records all ROLLBACK commands.
✓	Backup/Restore operation	Records all BACKUP and RESTORE commands.
✓	Deadlocks, timeouts	Records information about deadlocks and timec
✓	Table queries	Tells which users accessed which tables.
✓	Table updates/inserts	Records database manipulation language comn
✓	Connects/Disconnects per	Tells how long it takes users to connect to and c
✓	SQL perf	Tells you how much time SQLBase takes to com
✓	Transaction perf	Tells you when a transaction ended, and how lo

Output Directory: [   ] [...]

Max Records: 1000   Max Old Logs: 1

[Start] [OK] [Cancel]

SQLTalk Plus Server, Database and User Statistics

- ## Server Information
  - Connections
  - Statistics

- ## Database Information
  - Cursors
  - Statistics
  - Processes

- ## Easy to switch between info windows

- ## Statistics are being displayed in the Properties sub-window

Server Process Activity Log

- View server activity log from inside SQLTalk Plus

- No need to start Server Console to see what is going on at the server

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Demo SQLTalk Plus

Language enhancements and new functions

SQLBase 12.2

Ifbool Value Selector Function

- Return a value based on the evaluation of a boolean expression

- @ifbool(Boolean expression, true value, false value)

```sql
SELECT group_val, @ifbool(COUNT(*) > 2, 'big', 'small')
    FROM testif2
    GROUP BY group_val;

SELECT group_val, @ifbool(@ifbool(COUNT(*) > 2, 'big', 'small') = 'big', 'true', 'false')
    FROM testif2
    GROUP BY group_val;

SELECT num_val, @ifbool(EXISTS (SELECT * FROM testif WHERE testif.num_val = testif2.num_val), 'true', 'false') FROM testif2;
SELECT num_val, @ifbool(testif2.num_val = any (SELECT num_val FROM testif), 'true', 'false') FROM testif2;
SELECT num_val, @ifbool(testif2.num_val <> ALL (SELECT num_val FROM testif), 'true', 'false') FROM testif2;
```

Function to tell if a string is numeric

- @isnumeric(string)
- Returns 0 if not a number
- Returns 1 if a string is a number value

```sql
SELECT ch, @ISNUMERIC(ch), vch, @ISNUMERIC(vch), nch, @ISNUMERIC(nch),
    nvch, @ISNUMERIC(nvch), DEC, @ISNUMERIC(DEC), flt, @ISNUMERIC(flt),
    INT, @ISNUMERIC(INT), num, @ISNUMERIC(num), sint, @ISNUMERIC(sint),
    dt, @ISNUMERIC(dt), dttm, @ISNUMERIC(dttm), tm, @ISNUMERIC(tm),
    tstp, @ISNUMERIC(tstp), lvch, @ISNUMERIC(lvch)
    FROM sqlb2568_alltypes
```

Substring and mid for long datatype

- @substring and @mid functions
  now work with Long Varchar
  and Long Nvarchar data types

Limit and Offset

- Return a subset of the result set starting at <offset> for <limit> rows

- Limit <offset>,<limit>

SELECT * FROM COMPANY **LIMIT 5,5**

Demo SQL and SQL Functions

@ifbool()

@isnumeric()

@substring and @mid with long columns
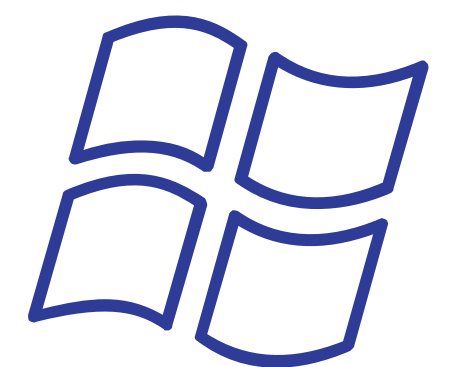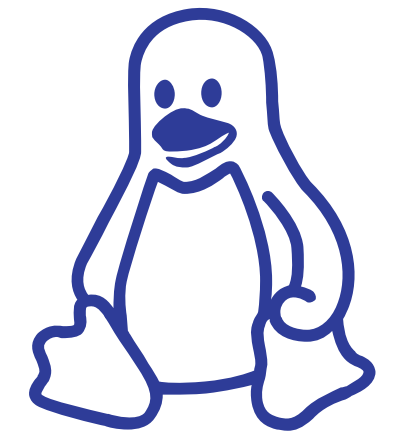
Select offset and limit

.NET Standard Data Provider

SQLBase 12.2

New .NET Standard Driver

- Works with all .NET implementations
  - .NET framework
  - .NET Core
- Access SQLBase from .NET Core applications
- .NET Core applications can run on Linux, macOS, and Windows
- For example ASP.NET Core Web applications

Demo .NET Core

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- Visual Studio Code on Linux (CentOS)
- MVC web app to access SQLBase

HomeController.cs ✕   C⃝ Teacher.cs

Controllers ▶ C⃝ HomeController.cs ▶ {} CRUDADO.Controllers ▶ ⚛ CRUDADO.Controllers.HomeController ▶ ⊘ Index()

```
17
        0 references
18      public HomeController(IConfiguration configuration)
19      {
20          Configuration = configuration;
21      }
22
        0 references
        public IActionResult Index()
23      {
24
25          List<Teacher> teacherList = new List<Teacher>();
26
27          string connectionString = Configuration["ConnectionStrings:DefaultConnection"];
28          using (SQLBaseConnection connection = new SQLBaseConnection(connectionString))
30          //SqlDataReader
31          connection.Open();
32
33          string sql = "Select * From Teacher";
34          SQLBaseCommand command = new SQLBaseCommand(sql, connection);
35
36          using (SQLBaseDataReader dataReader = command.ExecuteReader())
37          {
38              while (dataReader.Read())
39              {
40                  Teacher teacher = new Teacher();
                    teacher.Id = Convert.ToInt32(dataReader["Id"]);
                    teacher.Name = Convert.ToString(dataReader["Name"]);
                    teacher.Skills = Convert.ToString(dataReader["Skills"]);
43              teacher.TotalStudents = Convert.ToInt32(dataReader["TotalStudents"]);
                    teacher.Salary = Convert.ToDecimal(dataReader["Salary"]);
46                  teacher.AddedOn = Convert.ToDateTime(dataReader["AddedOn"]);
47
48                  teacherList.Add(teacher);
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL

New Server Console

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New Server Console

- Modern easy to use tab based interface

- Quickly switch between tabs to see what you are looking for

- Dock windows anywhere

- Free float windows

Demo SQLBase Server Console

Live demo

Q&A

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Thank you

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#TDMobile #TeamDeveloper #dotnet #WEB
#android #ios

Low #TCO embeddable #SQL #database
#SQLBase

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