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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

- SQL language enhancements
- Cross platform .NET Core application support
- New Server console
- SQLBase 12.2 demo
- Q&A

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



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

SQLBase 12.2



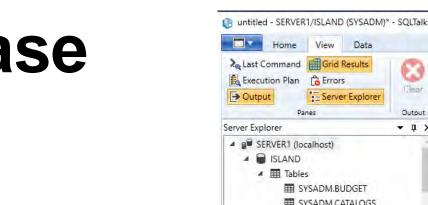




SQLTalk Plus Overview

- 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

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Last Command Execution Plan Output Pan	Clear	Test Cla Connect Vi	ssic ew									
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102	Maui Mu-Mus	1011 Likelike Lane	Honolulu	н	99878	USA	808-555-1212	808-555-2424	Advance	0	http://www.mauimu	
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105	Zanzibar Limited	36 Laibon Road	Dar es Salaam			Tanzania	255-51-66010	255-51-66701	Net 30	1	http://www.zanzibar	
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108	Evelyn Clothing	357 High Plains Road	Carmel	CA	94000	USA	408-555-1212	408-555-2424	Net 30	1	http://www.evelynclo	
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SQLTalk Plus Task Scheduling

- Schedule and maintain database maintenance tasks
- Based on Windows Task Scheduler
- No SQLBase task service or task database needed

Task Actions		- 🗆 🗙		Server Statistics
- Task Name	OpenText Island	New Task Properties (Local Machine)	- ×	Connects
Description		Triggers Conditions Settings Run Times When you create a task, you can specify the co	Edit Trigger	- 3
✓ Enabled		Tri Details	Begin the task: On a schedule \checkmark Settings	Id: 400
Connection Server Password Schedule	SERVER1	Daily At 09:47 every day	 One time Og/07/2019 ■* 09:47:58 Synchronize across time zo Daily Weekly Recur every: 1 days Monthly 	ones
			Advanced Settings Delay task for up to (random delay): Indefinitely Repeat task every: Indefinitely for a duration of: Indefinitely	
		New Edit Delete	Stop all running tasks at end of repetition duration Stop task if it runs longer than Indefinitely	
			Expire: 09/07/2019 09:51:36 Synchronize across time zones	
				OK Cancel

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Windows Task Execution Issue Notification

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

Gold Solution Solution	heduled Task Erro	or Properties (Loca	l Computer)			×
General Trig	gers Actions C	Conditions Settin	igs History			
Name:	SQLBase schedu	uled Task Error				
Location:	\Gupta					
Author:	OPENTEXT\mte	:etz				
Description:						
- Security opt	ions					
When runn	ing the task, use t	the following user	account:			
mteetz	-	-			Change Use	r or Group
Run only	when user is log	jged on				
O Run whe	ther user is logge	ed on or not				
Don	ot store password	d. The task will or	nly have access t	o local computer re	sources.	
🗌 Run with	n highest privilege	es				
🗌 Hidden	Configure	for: Windows 1)			~
					ОК	Cancel

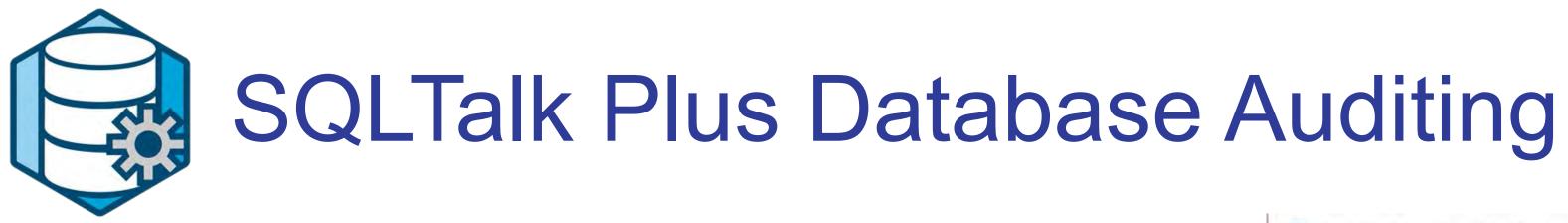
	Actions Conditions Settings History task, you can specify the conditions that will trigger the task.			Actions Conditions Settings History	
rigger	Details	Status	when you create	a task, you must specify the action that will occur when your task starts.	
)n an event	On event - Log: Microsoft-Windows-TaskScheduler/Operational		Action	Details]
			Start a program	"C:\Program Files\Gupta\SQLBase 12.2\sqltalk.exe" "C:\Users\mteetz\Doct	*
New	Edit Delete		< New	Edit Delete]

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lit Trigger			× –	Edit Action	
egin the task: Settings	On an event	~		You must specify what action this task will perform.	
BasicCustom	Log: Source: Event ID:	Microsoft-Windows-TaskScheduler/Operational \vee TaskScheduler \vee 202 \vee		Action: Start a program Settings Program/script: "C:\Program Files\Gupta\SQLBase 12.2\sqltalk.ex Add arguments (optional):	e" Browse "C:\Users\mteetz\Docun
Advanced sett Delay task Repeat tas Stop	t for: 15 min sk every: 1 hou			Start in (optional):	
Activate:	if it runs longer th 04/11/2019	▼ 14:45:23 Synchronize across time zones			
		OK Cancel			OK Cancel

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 Detect performance bottlenecks, database issues and find solutions



SERVER1: Audit Options

Audit Types

~	Types	Description
-	Rejected logons	Records unsuccessful login attempts. Useful to
~	Security violations	Tells you if a user tried to access data without p
~	Valid logons/logoffs	Records all valid logons, telling you when a use
-	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.
\checkmark	Deadlocks, timeouts	Records information about deadlocks and time
~	Table queries	Tells which users accessed which tables.
~	Table updates/inserts	Records database manipulation language comm
V	Connects/Disconnects per	Tells how long it takes users to connect to and
~	SQL perf	Tells you how much time SQLBase takes to com
1	Transaction perf	Tells you when a transaction ended, and how lo
<		2
Dutp	ut Directory:	
Max	Records: 1000 🖨	Max Old Logs: 1
	Start	OK Cancel



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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

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		Propert	ies		-	д 🗙 Properti	es		Ŧ	ąх
unti	itled - SERVI	ER1/ISLAND (SYSADM)*	Connection	ns - SERVI	ER1 (localhost) 🗙				
	Database	User name	Client name	Process	Cursor	Isolation Level	Status	Command Type		×
۲	SERVER1		MTEETZ-01	4	4	RR	0	0		
	ISLAND	SYSADM	MTEETZ-01	5	5	R3	0	0		
	ISLAND	SYSADM	MTEETZ-01	6	6	R3	0	0		
	ISLAND	SYSADM	MTEETZ-01	6	7	R3	6	1		
	ISLAND	SYSADM	MTEETZ-01	6	8	R3	0	0		
	ISLAND	SYSADM	MTEETZ-01	6	9	R3	0	0		
	ISLAND	SYSADM	MTEETZ-01	6	10	R3	0	0		
	SERVER1		MTEETZ-01	7	11	RR	0	0		
	ISLAND	SYSADM	MTEETZ-01	8	12	R3	0	0		

u	Inti	tled - SERVER1	1/ISLAND ((SYSADM) [:]	* Connectio	ons - SERVER1 (lo	ocalhost)	Cursors - ISLAND	Processes - ISLAND 🗙	
		Client name	Process	Status	Prepare Time	Execute Time	Fetch Time	Output Message Si	ze Input Message Size	Last Active
	۲	MTEETZ-01	5	wait for	00:00:00	00:00:00	00:00:00	2000	1000	
		MTEETZ-01	6	wait for	00:00:00	00:00:00	00:00:00	2000	1000	
		MTEETZ-01	8	wait for	00:00:00	00:00:00	00:00:00	2000	1000	
ur	ntitle	d - SERVER1/ISLAND (Connections - S		Cursors - ISLAND 🗙				

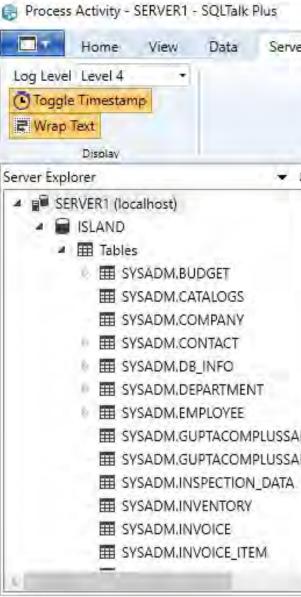
Database	User name	Client name	Process	Cursor	Isolation Level	Status	Cost	Prepare Time	Execute Time	Fetch Time	Command Type	Row Count	Virtual Reads	l^
ISLAND	SYSADM	MTEETZ-01	5	5	R3	0	0	00:00:00	00:00:00	00:00:00	0	0	0	С
ISLAND	SYSADM	MTEETZ-01	6	6	R3	0	0	00:00:00	00:00:00	00:00:00	0	0	0	С
ISLAND	SYSADM	MTEETZ-01	6	7	R3	6	50	00:00:00	00:00:00	00:00:00	1	0	0	С
ISLAND	SYSADM	MTEETZ-01	6	8	R3	0	0	00:00:00	00:00:00	00:00:00	0	0	0	С
ISLAND	SYSADM	MTEETZ-01	6	9	R3	0	0	00:00:00	00:00:00	00:00:00	0	0	0	С
ISLAND	SYSADM	MTEETZ-01	6	10	R3	0	0	00:00:00	00:00:00	00:00:00	0	0	0	С
ISLAND	SYSADM	MTEETZ-01	8	12	R3	0	0	00:00:00	00:00:00	00:00:00	0	0	0	С
			рансти	п г _										

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Server Process Activity Log

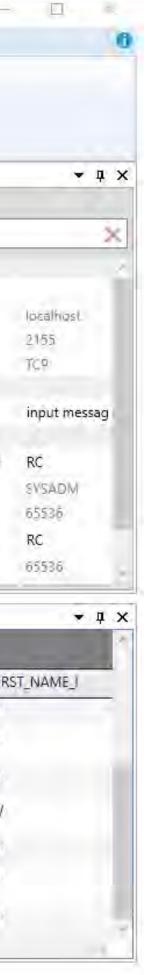
- View server activity log from inside SQLTalk Plus
- No need to start Server Console to see what is going on at the server



EMPLOYEE_ID	LAST_NAME	DEPT_ID	FIRST_NAME	MI	EXTENSION	OFFICE_NO	DATE_HIRED	CURRENT_SALARY	LAST_NAME_I	FIRST
HPG	Geraldo	CSS	Helen	P	4116	6	10/07/1995	58080	G	H
SDJ	Jones	MIS	Sam	D	4117	7	17/04/1995	65560	ý.	s
SRS	Smith	MFG	Simon	R	4118	8	08/05/1995	53000	S	5
WLS	Suzuki	MKTG	William	L	4119	9	27/02/1995	54300	s	W
BAL	Liebowitz	MFG	Benjamin	A	4110	10	15/05/1995	43000	L	В
AHT	Anak	CSS	Tortuga	н	4102	3	12/05/1996	59500	Δ	T
BYG	Gena	FIN	Bernard	Y	4103	5	01/01/1997	78000	G	В

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er Con	ole		
ŢХ	untitled - SERVER1/ISLAND (SYSADM)*	Process Activity - SERVER1* ×	
MI	PKCOLSEQNUM, FKCOLSEQNUM FR A.TBCREATOR=B.CREATOR AND A.T ON A.TBCREATOR=C.CREATOR AND TBCREATOR='SYSADM' 05/28/19 15:35:01 5> cur=11 snm=2 05/28/19 15:35:11 4> cur=4 snm=10 05/28/19 15:35:14 4> cur=4 snm=10 05/28/19 15:35:16 4> cur=4 snm=10 05/28/19 15:35:16 4> cur=4 snm=10	f=0 cfl=1 fcd=4 [execute] f=0 cfl=1 fcd=5 [fetch] f=0 cfl=1 fcd=2 [disconnect] f=0 cfl=0 fcd=75 [get server parameter] arameter 1033 f=0 cfl=0 fcd=85 [get database parameter] SQLPCUN (3047) - Current cursor user name 0 rbf=0 cfl=0 fcd=75 [get server parameter] SQLPCUN (3047) - Current cursor user name	M.SYSPKCONSTRAINTS B ON S JOIN SYSADM.SYSFKCONSTRAINTS C



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Gupta SQLBase SQL Talk Plus



Language enhancements and new functions

SQLBase 12.2







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Ifbool Value Selector Function

- Return a value based on the evaluation of a boolean expression
- @ifbool(Boolean expression, true value, false value)

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



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 imit> rows
- Limit <offset>,<limit>

SELECT * FROM COMPANY LIMIT 5,5





Demo SQL and SQL Functions



@isnumeric()

@ifbool()

@substring and @mid with long columns

Select offset and limit



.NET Standard Data Provider

SQLBase 12.2

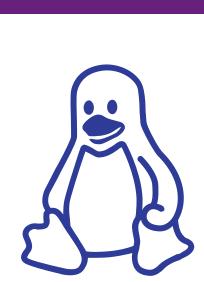
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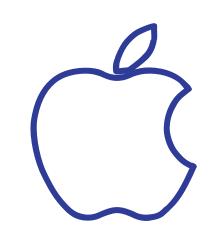




- Works with all .NET implementations
 - .NET framework
 - .NET Core
- Access SQLBase from .NET Core applications
- .NET Core applications can run on Linux, macOS, and Windows
- For example ASP.NET Core Web applications











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Q %	 OPEN EDITORS HomeController.cs Controllers Teacher.cs Models GRUDADO NS 	19 {	ntroller(IConfigu
8	 vscode () launch jean () tasks jean k kin 		Result Index(
	Controllers Controller.cs		her> teacherLi
	 CustomValidation Skills Validation Models Models Demos Teacher.cs obj 	NET Core	LBaseConnection DataReader ction.Open();
	 Properties () launchSettings.json 		<mark>g sql = "Selec</mark> seCommand comm
	 Views Home Create.cshtml Index.cshtml Update.cshtml 		(SQLBaseDataR hile (dataRead
		e on Linux (CentOS)	Teacher tea teacher.Id teacher.Nam
	 MVC web app to a 		teacher.Ski teacher.Tot teacher.Sal
	 appsettings.json CRUDADO.csproj CRUDADO.csproj.user 		teacher.Add
	 Program.cs Startup.cs 	PROBLEMS. OUTPUT DEBUG CONSO	LE TERMINAL

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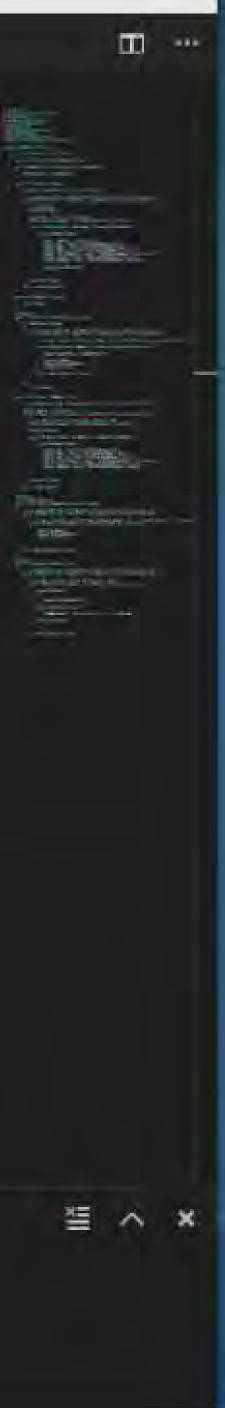
```
uration;
```

```
ist = new List<Teacher>();
```

```
= Configuration["ConnectionStrings:DefaultConnection"];
on connection = new SQLBaseConnection(connectionString))
```

```
From Teacher";
d = new SQLBaseCommand(sql, connection);
 er dataReader = command.ExecuteReader())
  Read())
 r = new Teacher();
  onvert.ToInt32(dataReader["Id"]);
  Convert.ToString(dataReader["Name"]);
  = Convert.ToString(dataReader["Skills"]);
 Students = Convert.ToInt32(dataReader["TotalStudents"]);
y = Convert.ToDecimal(dataReader["Salary"]);
d0n = Convert.ToDateTime(dataReader["AddedOn"]);
```

```
.Add(teacher);
```



New Server Console

SQLBase 12.2

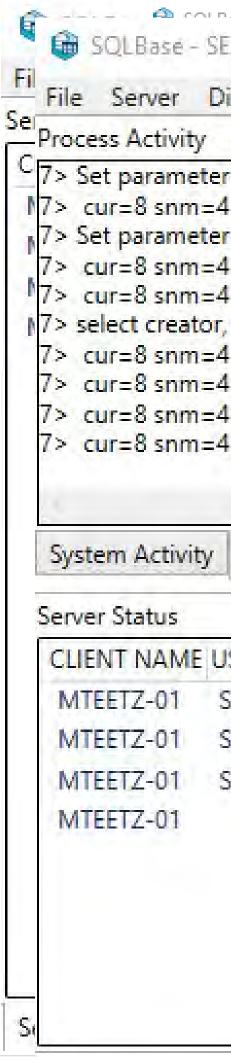
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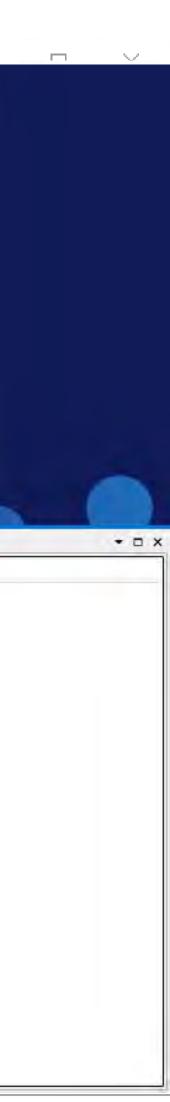
New Server Console

- Modern easy to use tab based interface
- Quickly switch between tabs to see what you are looking for
- Dock windows anywhere
- Free float windows



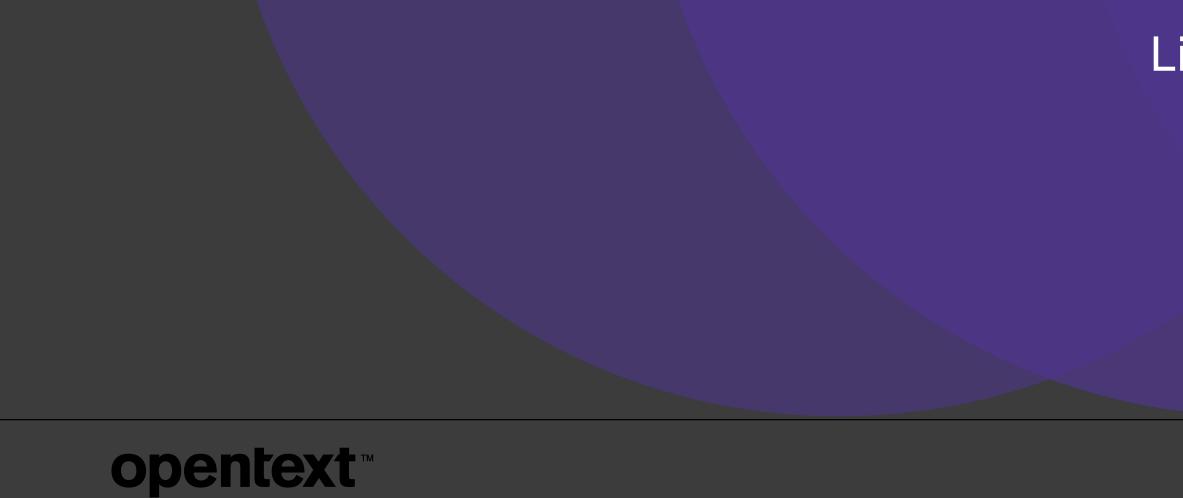
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	File Server Display Pause Le	vel Help				
splay Pause	Len Process Activity					→ ‡ ×
SQLPAUT (3006 cfl=0 fcd=82 [se SQLPPCX (3003 cfl=3 fcd=50 [se cfl=3 fcd=49 [se name, type, syst cfl=1 fcd=3 [co cfl=1 fcd=4 [exe cfl=1 fcd=5 [fet cfl=1 fcd=2 [dis	7> get parameter SQLPROT (2009) - 7> cur=7 snm=4 cfl=0 fcd=82 [set 7> Set parameter SQLPAUT (3006) to 7> cur=7 snm=4 cfl=0 fcd=82 [set 7> Set parameter SQLPDTL (2019) to 7> cur=7 snm=4 cfl=1 fcd=28 [set 7> set isolation level to "RC" 7> cur=7 snm=4 cfl=0 fcd=85 [get 7> get parameter SQLPREC (2011) - 10 11 12 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	ANSI join syntax database parameter] read-only transactions database parameter] o 1 (autocommit) database parameter] o 300 (command timelin solation level] database parameter] recovery ect] rname=[SYSADM] database parameter] o 1 (autocommit) database parameter] o 1 (preserve context) input Message Size]	nit)			
	7> cur=8 snm=4 cfl=3 fcd=49 [set 7> select creator, name, type, Sen/					
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Process Activity	7> cur=8 snm=4 cfl=1 fcd=5 M	TEETZ-01 SYSADM	SQLBASE12TWO	IDLE tcpv4	5924	
		TEETZ-01 SYSADM	SBTASK	IDLE tcpv4	5924	
		TEETZ-01 SYSADM TEETZ-01		IDLE tcpv4 IDLE tcpv4	5924 5924	
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YSADM SQL	BA					
and the second second						
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Demo SQLBase Server Console





Live demo



Q&A SQLBase 12.2





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Thank you



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#agile #lowcode #softwaredevelopment
#TDMobile #TeamDeveloper #dotnet #WEB
#android #ios

Low #TCO embeddable #SQL #database #SQLBase

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