



KEPS 连接数据库练习

2018-09



KEPServerEX 和数据库通信操作

准备工作:

硬件:一台 PC

软件: KEPServerEX V6.4, Simulator 驱动, DataLogger 插件, ODBC Client 驱动

本文档实现的是将 KEPServerEX 采集到的数据写到 SQL Server 数据库中;同时,也能从 SQL Server 数据库中读取数据。

Step1,数据点采集

首先,KEPServerEX 中已新建好一个工程,如下图所示,使用了模拟的 Simulator 驱动模拟产生了 10 个数据点。

ex KEPServerEX	6 Configuration [C	connected to Runtime]	and the second sec		A DESCRIPTION OF THE OWNER OF THE	ALL DECOMPOSITION OF		0 X
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Project		Tag Name	/ Address	Data Type	Scan Rate	Scaling	Description	
⊟ (篇) Conne	ectivity	🐼 r1	R0001	Word	100	None		
⊡- s ,≥ Cr	hannel I	🐼 r2	R0002	Word	100	None		
Sec Alizon	Device I	😡 r3	R0003	Word	100	None		
At Advan	s aced Tage	🐼 r4	R0004	Word	100	None		
Alams	s & Events	🚾 r5	R0005	Word	100	None		
Ac	dd Area	🚾 r6	R0006	Word	100	None		
🕀 😫 Data I	Logger	🐼 r7	R0007	Word	100	None		
EFM E	Exporter	🐼 r8	R0008	Word	100	None		
T 🔂 Ac	dd Poll Group	P1 🔝	R0009	Word	100	None		
DF fo	or Splunk	🐼 r10	R0010	Word	100	None		
- () Ac	dd Splunk Connection							
回 柴 loT Ga	ateway							
Ac Ac	dd Agent							
	Historian							
AC	dd Uatastore							
	dd Schedule							
E & SNMP	P Agent							
A Ac	dd Agent							
Date 7	Time	Source	Event					*
1 2017/6/30	8:42:36	KEPServerEX\Runtime	Starting Simulator device driver.					
1 2017/6/30	8:42:36	Simulator	Simulator Device Driver 'V6.1.601.0'					
1 2017/6/30	8:42:36	KEPServerEX\Runtime	Advanced Tags Plug-in V6.1.601.0					
1 2017/6/30	8:42:36	KEPServerEX\Runtime	Data Logger Plug-in V6.1.601.0					
(1) 2017/6/30	8:42:36	KEPServerEX\Runtime	Alams & Events Plug-in V6.1.601.0					
1 2017/6/30	8:42:36	KEPServerEX\Runtime	SNMP Agent Plug-in V6.1.601.0					
1 2017/6/30	8:42:36	KEPServerEX\Runtime	Media Level Redundancy Plug-in V6.1.601.0					
1 2017/6/30	8:42:36	KEPServerEX\Runtime	EFM Exporter V6.1.601.0					
(1) 2017/6/30	8:42:36	KEPServerEX\Runtime	Connection Sharing Plug-in V6.1.601.0					
1 2017/6/30	8:42:36	KEPServerEX\Runtime	Security Policies Plug-in V6.1.601.0					
1 2017/6/30	8:42:36	KEPServerEX\Runtime	Local Historian Plug-in V6.1.601.0					
1 2017/6/30	8:42:36	KEPServerEX\Runtime	IDF for Splunk V6.1.601.0					
1 2017/6/30	8:42:36	KEPServerEX\Runtime	Scheduler Plug-in V6.1.601.0					
1 2017/6/30	8:42:36	KEPServerEX\Runtime	IoT Gateway V6.1.601.0					
1 2017/6/30	9:02:08	KEPServerEX\Runtime	Configuration session started by SC as Defau	lt User (R/W).				*
Ready							Dafault Llear Cliante: 0 Acti	ve tage: 0 of 0

创建 simulator 驱动

Select the type of channel to be cre	ated:
Simulator	• (2)



Specify the identity of this	object.	
Name:		
Channel1		

选择 Simulator 驱动,默认下一步直至完成

创建 Device

Add Device Wizard	-
Specify the identity of Name:	this object.
Device1	0
	下一步(N) 取消

默认下一步, 直至完成

添加数据点 r1-r10, 地址分别为 R0001-R0010

Property Groups	Identification	
General	Name	r1
Scaling	Description	
Joanny	Data Properties	
	Address	r0001
	Data Type	Default
	Client Access	Read/Write
	Scan Rate (ms)	100



Step2, Datalogger 的配置

1. 选中左边树状图图中的 Data Logger



2. 点击添加一个新的组

KEPServerEX 6 Cor	nfiguration [Co	onnected to Runtime]		-	100 C		and the second	
<u>File Edit View To</u>	ools <u>R</u> untime	e <u>H</u> elp						
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Project P	sel to add a device. ogg froup k tr n store adule tt	General Proper Name: Description: Update rate: Store and Fory Enabled Storage direct Maximum store Memory Prope Maximum row	ttes untitled untitle	Data Source Pri DSN: User Name: Password: Login Timeout: Batch Identifier Batch ID Item: Data Type: Update rate: Timestamp Prog	operties (dBASE Files 10 10 (seconds) Default 100 miliseconds perties ne for timestamp ipperts (uncheck for UTC)	Configure DSN		E
		Map Numer Help	c ID to VARCHAR by default eral / Data Map / Triggers /					Ţ
Date 7 Time	e	Source	Event					*
(1) 2017/6/30 8:4	2:36	KEPServerEX\Runtime	Advanced Tags Plug in V6.1.601.0					
1 2017/6/30 8:4	2:36	KEPServerEX\Runtime	Data Logger Plug-in V6.1.601.0					
1 2017/6/30 8:4	2:36	KEPServerEX\Runtime	Alams & Events Plug-in V6.1.601.0					
i) 2017/6/30 8:4	2:36	KEPServerEX\Runtime	SNMP Agent Plug in V6.1.601.0					_
i) 2017/6/30 8:4	2:36	KEPServerEX\Runtime	Media Level Redundancy Plug-in V6.1.601.0					
(i) 2017/6/30 8·4	2:36	KEPServerEX\Runtime	FFM Exporter V6 1 601 0					~
Ready							Default User Clients	0 Active tags: 0 of 0

底部三个 Tab 分为 3 块,分别为 General (DSN 的配置), Data Map(数据点的映射)以及 Triggers(设置触发条件)

3. 先进行 General 的配置, 主要是 DSN 的基本的配置

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Connective Channel Connective Channel Device1 Device1 Device1 Advanced Tags Advanced Tags Data Logger Channel Definition Offer Sponk Offer Sponk Definition	General Prope Name: Description: Update rate: Store and Foru	thes untitled 100 milliseconds v Penabled ward	Data Source Pr DSN: User Name: Password: Login Timeout: Batch Identifiei	perties dBASE Files ▼ 10 ≜ ↓ (seconds)	Configure DSN)	
→ Ad Splink Connection. → Local Hatoran → Add Agent → Add Agent → Add Datastoran → Add Scheduler → Scheduler → Shreduler → SNNP Agent	Enabled Storage direct Maximum stora	ory: C: ProgramData Kepware KEPServerEX(V6)Datab) ges size (MB): 10	Batch ID Item: Data Type: Update rate:	Default 1000 🚖 miliseconds 🔻		
└─(承) Add Agent	Memory Prope Maximum row Map Numer Help	utfer size: 1000	Timestamp Pro	erties ne for timestamp inserts (uncheck for UTC)		
	H + H Gen	eral / Data Map / Triggers /				
Date 🗸 Time	Source	Event				
(i) 2017/6/30 8:42:36 (i) 2017/6/30 8:42:36 (i) 2017/6/30 8:42:36 (i) 2017/6/30 8:42:36 (i) 2017/6/30 8:42:36	KEPServerEX\Runtime KEPServerEX\Runtime KEPServerEX\Runtime KEPServerEX\Runtime	Advanced Tags Plug+n V6.1.601.0 Data Logger Plug+n V6.1.601.0 Alama & Events Plug-in V6.1.601.0 SNMP Agent Plug-in V6.1.601.0 Martia Levent Bed undarger Plug-in V6.1.601.0				
(i) 2017/6/30 8:42:36	KEPServerEX\Buntime	FFM Exporter V6.1.601.0				
Ready						Default User Clients: 0 Active tags: 0 of

4. ODBC 数据源管理器配置



选择系统 DSN,添加一个新的 DSN,创建新数据源

	名称	^
OTTE	Microsoft Paradox-Treiber (*.db) Migroroft Tout Driver (*.tut: *.asv)	
	Microsoft Text-Treiber (*. txt; *. csv)	
	Microsoft Visual FoxPro Driver	
	SQL Native Client	=
	SQL Server	-
	< <u> </u>]
]



点击完成,选择远端的 SQL Server 为例

创建到 SQL Server 的新	所数据源
	此向导将帮助建立一个能用于连接 SQL Server 的 ODBC 数据源。 您想用什么名称来命名数据源? 名称 @): dbtest1] 您希望如何描述此数据源? 描述 @): 您想连接哪一个 SQL Server? 服务器 (S): PC2011081713GAS
	「完成」下一步 (2) > 取消 帮助

下一步,取个数据源名称,选择验证登录的方式,使用用户登录 ID 的 SQL 验证方式

创建到 SQL Server 的新	数据源
	SQL Server 应该如何验证登录 ID 的真伪? ⑦ 使用网络登录 ID 的 Windows NT 验证(2)。 ⑧ 使用用户输入登录 ID 和密码的 SQL Server 验证(S)。 要更改用于与 SQL Server 通讯的网络库,请单击"客户端配置"
	客户端配置 ① ■ 连接 SQL Server 以获得其它配置选项的默认设置 ©)。 登录 ID (L): sa 密码 (E): ●●●●●●●●
	< └ └ ─ 歩 ⑭) 下 ─ 歩 ⑭) > □ 取消 □ 帮助 □

登录 ID 为 sa, 密码为 sibotech

下一步,选择操作的数据库,选择 Master 数据库

-	master
	master
	modelmsdb
	☑ / 加速大的 342 后向创建临时任随过柱,并而标该任随过档 ①:
	◎ 只有当断开时 (0)。
	当断开时和连结时同样适用 (W)。
	☑ 使用 ANSI 引用的标识符 (U)。
	☑ 使用 ANSI 的空值、填充及警告(A)。
	□ 若主 SQL Server 不可用,请使用故障转移 SQL
	Derver (F) ~

下一步,默认





点击完成

将招	安下列配置创建新的	ODBC 数据源:	
hicrosoft SQL 3 hicrosoft SQL 3 於我語名描述: 將指導整章:PC2011(指摘整章:PC2011(時間一個 是一個 是一個 是一個 是一個 是一個 是一個 是一個 是	Server ODBC 驱动我 test1 D81713GAS) (es : No No No 预: 在断开时删除峭 务器: No 的标识符: Yes 直,填充和警告: Y	信序版本 06.01.7601 印存储过程 es	
加心并来开起。因	(ም)	(福宁) (聊谐

点击测试数据源测试是否通信成功,见下图测试过程:

11式结果	
Microsoft SQL Server ODBC 驱动程序版本 06.01.7601 正在运行注接测试	*
一 12-11 在 13-11 试图注接 注接预建立 验证选项设置 断开与服务器的连接	
测试成功!	

点击确定





点击确定关闭对话框。

然后,可以看到新建的 DSN 已经建立完成



选中 dbtest1, 点击确定即可

5. 回到 Datalogger 配置界面,选择刚刚新建的名为 dbtest1 的 DSN,输入用户名 sa 和密码 sibotech

Name: sibotech	DSN: dbtest1 • Sonfigure DSN	
Description:	Usgr Name: sa	
	Password:	
Update rate: 100 👘 milliseconds 💌		
I Enabled	Login Timeout: 10 (seconds)	
Store and Forward	Batch Identifier	
Enabled	Batch ID Item:	1
Storage directory: D:\ProgramData\Kepware\KEPServerEX\V5\DataL	Data Type: Default	
Maximum storage size (MB): 10	Update rate: 1000 🛟 miliseconds 🔻	
Memory Properties	Timestamp Properties	
Maximum row buffer size: 1000	Use local time for timestamp inserts (uncheck for UTC)	
Map Numeric ID to VARCHAR by default		
Heb		
		+



6. Data Map 的配置,点击下方的 Data Map 功能块

ItemID	Data Type	
Second (Cl) Except (Cl)		
los to as existing table		
Or selection I gog to an existing table. Oreate a new table every time the line	nn nnun is started (dick 'Man Fields' to customize column/item man)	1
 Selection Log to an existing table. Create a new table givery time the limit of the selection of the se	lag group is started (click 'Map Fields' to customize column/item map) s attempt to append to this table (click 'Map Fields' to customize coli). umu/item map).
 Log to an existing table. Create a new table every time the li Create a new table gnce and alway: Lable Name (drop down queries tables) 	og group is started (click 'Map Fields' to customize column/item map) s attempt to append to this table (click 'Map Fields' to customize colu)). .mnyltem map).
ole selection Create a new table givery time the li Create a new table givery time the li Create a new table give and always Jable Name (drop down queries tables) ble Format	log group is started (click 'Map Fields' to customize column/item map) s attempt to append to this table (click 'Map Fields' to customize colu) -). umn/ltem map).
Log to an existing table. Create a new table givery time the l Create a new table givery time the l Create a new table giver and alway: Table Name (drop down queries tables) ble Format Narrow: Each item shares a single a	lag group is started (click 'Map Fields' to customize column/item map) s attempt to append to this table (click 'Map Fields' to customize colu)). umn/item map).

Log group 'sbatech' - unable to connect to data source 'BOX PC' (Reason: '未找到指定的 SQL Server o ConnectionOpen (Connect()).').

点击 Add 按钮添加 tag 数据点

<u>I</u> tem ID:	
<u>N</u> umeric ID:	0
<u>D</u> ata Type:	Default
Deadband	
Deadband type:	None 🔻
Dead <u>b</u> and:	0

点击 Item ID 后面的浏览按钮,添加一个 tag

Include system/internal tag grou	ps Tag Name		Data Type	Description
CEMEwaartar	. (1		Word	
IDE for Solunk	🥝 r10		Word	
	🚾 r2		Word	
	🚾 r3		Word	
Redundancy	🖂 r4		Word	
Scheduler	🕝 r5		Word	
SNMP Agent	😡 r6		Word	
System	🚾 r7		Word	
🖓 Channel 1	🚾 r8		Word	
Statistics	🚾 r9		Word	
System	=			
🖃 🎹 Devicel				
- 🔁 _System				
🖻 🛅 sibo1				
System				
⊦∰ odbc				
Statistics				
System		Apply		



点击 Apply,完成添加

ieneral	
<u>I</u> tem ID:	Channel1.Device1.r1
<u>N</u> umeric ID:	0
<u>D</u> ata Type:	Word
eadband	
Deadband type:	None
Dead <u>b</u> and:	0
<u>R</u> ange:	0 up to 0

点击 OK,添加一个 tag 完成

KEPServerEX 6 Configuration [Connected to	Runtime]			
Elle Edit View Iools Buntime Help				
0 🗃 🖬 📓 🗗 🕼 💿 🖅 🤊	1 4 A X 🕺 🖾			
Project (1) Connectivity (2) Connectivity (2) Channel1	Şerver Item List (group update rate is 10	ims, 1 items defined)		ń
Device1	ItemaD	Data Type		
Control Contr	G Ohannd L Device 1 / 1	Ward		E.
Add Poll Group OF for Splunk Add Splunk Connection	Import CSV Export CSV		Add Browse Mod	Sfy Delete
E to T Gateway	Table Selection			

选择记录数据的方式

Table Selection			
Log to an existing table.			
Create a new table every time the log group is started (dick 'Map Fields' to customize column/item m	ap).	
Create a new table once and always attempt to append	to this table (dick 'Map Fields' to customize	column/item map).	
Table Name (drop down queries tables)	•		

有3种方式,分别为:

- ▶ 记录到一个已存在的表格中
- ▶ 每一次 log 组开始记录的时候创建一个新表
- > 只创建新表一次,之后总是把数据合并到这个表格中

默认选择第三种



Table Selection	
Log to an existing table.	
Create a new table every time the log group is started (dick 'Map Fields' to customize colu	nn/item map).
Create a new table once and always attempt to append to this table (dick 'Map Fields' to one table is table in the table of the table is table in the table is table in the table is table in table.	ustomize column/item map).
Table Format Our content is a single alias map (i.e. there is a single 'value' column).	
If f in the Internal Data Map Triggers	

在文本框中可以输入表格的名称

Table Format 功能默认选择第一种 Narrow 的方式,即每个 tag 数据点记录到数据库的时候共享一个 Value 字段,

占用一列

Table Format	
<u>N</u> arrow: Each item shares a single alias map (i.e. there is a single 'value' column).	
Wide: Each item gets its own alias map (i.e. 't1_value' and 't2_value' are in separate columns)	
	Map Eields
Help	
If 4 >>>> \General Data Map (Triggers	

触发条件,默认已选上总是触发,每 500ms 触发一次

ame	Description	Type	Intervai	Data Change	Monitor Item		
rigger		Always Triggered	500 milliseconds	Yes	No		
						<u>A</u> dd	Modify Delete
Help							

可以修改触发条件



Log on Static Interval:	500	*	milliseco	nds 🔻		
Log on Data Change of	any value v	within the	e log grou	р		
Log entries for all items	when the <u>M</u>	onitored	ltem's va	ue change	es	
Monitor Item ID:						
Update rate:	1000	×	milliseco	nds 🔻		
Data Type:	Default					
Deadband type:	None	w]				
Deadband:	0		Range:	0	up to	0

Setp3,点击工具栏上的红色区域,应用更新,然后开始写入数据库

KEPServerEX 6 Configuration [Un	titled "]
<u>File Edit View Tools Runtime</u>	Help
🗋 🗃 🖬 🛃 🚺 🕑 🔍	🖅 🤊 🔏 📭 🕿 🗙 🕅
Project	General Properties

从下方的事件日志中可以看到, log 组正在记录数据

Project	ectivity	Â	General Properties	Data Source Pri	operties		
	Device1		Name: untitled	DSN:	dbtest 1 👻	Configure DSN	
	sibo1					(manufacture of the second se	
	Click to add a de	vice.	Description:	User Name:	sa		
Aliase	es			Dannund			
Adva	nced Tags a & Events		Lindate rate: 100 milliseconds	Easeword:			
A	dd Area	E		Login Timeout:	10 (seconds)		
🖯 🎒 Data	Logger		C Enabled				
	intitled		Store and Ennuard	Batch Identifier			
EFM	Exporter		Store and Forward	Daugh 10emaner			
INF IDE A	Add Poll Group		Enabled	Batch JD Item:			
O A	dd Splunk Connecti	on	Storana directory Di ProgramData Kenware KEPServer EV/V6/Data	Data Transi	Durfu da		
· 贵 IoTG	Sateway		Storage directory:	Data Type:	Default		
E Coca	I Historian		Maximum storage size (MB): 10	Update rate:	1000 💠 miliseconds 👻		
8 m Sche	duler						
	dd Schedule	- H	H General (Data Map (Triggers /				
late	Time	Source	Event				
2017/6/30	11:46:13	KEPServerEX\Runtime	Scheduler Plug in V6.2.429.0				
2017/6/30	11:46:13	KEPServerEX\Runtime	IoT Gateway V6.2.429.0				
2017/6/30	11:46:14	KEPServerEX\Runtime	Configuration session started by robin as Default User (R/W).				
2017/6/30	11:46:21	Licensing	Feature Data Logger Plug in is time limited and will expire at 2017/6/30 13:46.				
2017/6/30	11:46:22	Data Logger Plug-in	Table name Table6' exists for log group \untitled' on DSN 'dbtest 1', which is in 'c	seate table once an	d append' mode.		
2017/6/30	11:46:23	KEPServerEX\Runtime	Configuration session assigned to robin as Default User has ended.		5700		
2017/6/30	11:46:23	Data Logger Plug-in	Log group 'untitled' is connected to DSN 'dutest1' and is logging data.				
2017/6/30	11:46:25	KEPServerEX\JoT Gateway	IoT Gateway service starting.				

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打开 SQL Server 数据库,显示 table6 数据表中已经有记录的数据了

🐨 🏥 🕺 🦉 更改类型(Y)* 🕴 🐏 🎦 💼 🖕									
対象资源管理器 →	平× 🔽表 - dbo.table6	商要					• ×	属性	
왕 ઝ = 🗈 🝸	id	_NAME	_NUMERICID	_VALUE	_TIMESTAMP	_QUALITY		[查询] Query	
E Rec2011081713GAS (SQL Server 9.0.1399 - sa)	221688	Channel1.Device1.r1	0	1791	2017-06-30 11:49:36	192			
🗆 🦲 数据库	221689	Channel1.Device1.r1	0	1792	2017-06-30 11:49:36	192		日 (転望)	
□ □ 系统数据库	221690	Channel1.Device1.r1	0	1793	2017-06-30 11:49:36	192		(名称)	Ouerv
回 🥶 惠	221691	Channel1.Device1.r1	0	1793	2017-06-30 11:49:36	192		服务器名	pc2011081713gas
■ □ 系统表	221692	Channel1 Device1 x1	0	1794	2017-06-30 11:49:36	192		数据库名称	master
🖽 🛄 dbo.Table_1	221602	Channel1.Device1.r1	0	1705	2017-06-20 11:40:26	102		□ 查询设计器	
dbo.Table_2	221050	Chamber Devicer at	0	1795	2017-00-30 11.49.30	172		DISTINCT 值	香
	221694	Channell.Device1.r1	U	1796	2017-06-30 11:49:36	192		GROUP BY 扩展	<尤>
H dbo table[1	221695	Channel1.Device1.r1	0	1797	2017-06-30 11:49:36	192		SQL 注释 F Top 相符	*
H dbo.table1	221696	Channel1.Device1.r1	0	1797	2017-06-30 11:49:37	192		□ TOP %78 古治共物別事	
Η 📰 dbo.table10	221697	Channel1.Device1.r1	0	1798	2017-06-30 11:49:37	192		目标表	OC HIJD PULL POINT
📧 🔜 dbo.table100	221698	Channel1.Device1.r1	0	1799	2017-06-30 11:49:37	192		输出所有列	是
🕀 🛄 dbo.table2	221699	Channel1.Device1.r1	0	1800	2017-06-30 11:49:37	192			
dbo.table5 dbo.table6	221700	Channel1.Device1.r1	0	1801	2017-06-30 11:49:37	192			
H dbo.table8	221701	Channel1.Device1.r1	0	1802	2017-06-30 11:49:37	192			
🗉 🧰 視图	221702	Channel1 Device1 r1	0	1802	2017-06-30 11-49-37	192			
🗉 🧰 同义词	221702	Channell Device1 at	0	1002	2017 06 30 11:40:37	102		4	
I I I I I I I I I I I I I I I I I I I	221703	Chamilel Device1.11		1005	2017-06-30 11:49:37	192			
1 🥶 存储	221704	Channel1.Device1.r1	U	1804	2017-06-30 11:49:37	192			
The second secon	221705	Channel1.Device1.r1	0	1805	2017-06-30 11:49:37	192		1	
🗉 间 msdb	221706	Channel1.Device1.r1	0	1806	2017-06-30 11:49:37	192			
🗉 🧻 tempdb	221707	Channel1.Device1.r1	0	1807	2017-06-30 11:49:38	192			
■ 3 数据库快照	221708	Channel1.Device1.r1	0	1807	2017-06-30 11:49:38	192			
出 🥶 文王任	221709	Channel1.Device1.r1	0	1808	2017-06-30 11:49:38	192			
王 _ 加於了自己的	221710	Channel1.Device1.r1	0	1809	2017-06-30 11:49:38	192			
田 🧰 管理	221711	Channel1.Device1.r1	0	1810	2017-06-30 11:49:38	192			
	221712	Channel1.Device1 r1	0	1811	2017-06-30 11:49-38	192			
	221712	Channell Device1 r1	0	1812	2017-06-30 11:49:39	192		1	
	221713	Channelt Device1.41	0	1012	2017-00-30 11:49:30	102			
	221714	Channell.Device1.r1	0	1612	2017-06-30 11:49:36	192			
	221/15	Channel1.Device1.r1	U	1813	2017-06-30 11:49:38	192			
	221716	Channel1.Device1.r1	0	1814	2017-06-30 11:49:38	192			
	221717	Channel1.Device1.r1	0	1815	2017-06-30 11:49:38	192			
	221718	Channel1.Device1.r1	0	1816	2017-06-30 11:49:39	192			
	221719	Channel1.Device1.r1	0	1816	2017-06-30 11:49:39	192		(标识)	
	221720	Channel1.Device1.r1	0	1817	2017-06-30 11:49:39	192	-		

至此, 写数据库演示完毕。



使用 ODBC Client 驱动来查看数据库数据

1 在 KEPServerEX 中新建一个 channel

Add Channel Wizard	
Select the type of channel to be created:	
ODBC Client	• 0

选择 ODBC Client Driver

Add Channel Wizard	
Specify the identity of this object. Name:	
odbe	0



Add Channel Wizard Choose how write data is passed to the underlying communications driver when more than one write exists in the write queue. Optimization Method: Write Only Latest Value for All Tags	r
Choose how write data is passed to the underlying communications driver when more than one write exists in the write queue. Optimization Method: Write Only Latest Value for All Tags	r
Choose how write data is passed to the underlying communications drive: when more than one write exists in the write queue. Optimization Method: [Write Only Latest Value for All Tags -)	r
when more than one write exists in the write queue. Optimization Method: [Write Only Latest Value for All Tags -	•
Optimization Method: [Write Only Latest Value for All Tags 🔹 👻	
Write Only Latest Value for All Tags 🔹 🔻 🕡	
Specify the ratio of write operations to read operations, based on one	
read per configurable number of writes.	
Juty Cycle.	
下一步(N)	取消
Add Channel Wizard	
Choose how to send invalid floating-point numbers to the client.	
Floating-Point Values:	
Unmodified 👻 🕢	

下一步,选择刚刚配置的 DSN,输入用户名和密码如下,用户名为 sa,密码为 sibotech



Dat	a Source:	
dbt	.est1	🤇
Ent	er the data source user name	(if needed).
líse	rname'	
_		
28		
		下一步(N)
	Add Channel Wizard	下一步(N)
	Add Channel Wizard	下一步(N)
	Add Channel Wizard Identification Name	下一步(N)
	Add Channel Wizard Identification Name Description	下一步(N)
	Add Channel Wizard Identification Name Description Driver	下一步(N)
	Add Channel Wizard Identification Name Description Driver Diagnostics	下一步(N)
	Add Channel Wizard Identification Name Description Driver Diagnostics Diagnostics Capture Write Objectives	下一步(N) odbc ODBC Client Disable
	Add Channel Wizard Identification Name Description Driver Diagnostics Diagnostics Capture Write Optimizations Optimization Mathed	下一步(N) odbc ODBC Client Disable
	Add Channel Wizard Identification Name Description Driver Diagnostics Diagnostics Diagnostics Capture Wite Optimizations Optimization Method Drive Captage	下一步(N) odbc ODBC Client Disable Write Only Latest Value for All Tags
	Add Channel Wizard Identification Name Description Driver Diagnostics Diagnostics Capture Write Optimizations Optimization Method Duty Cycle Non Nemalized Boot Magding	下一步(N) odbc ODBC Client Disable Write Only Latest Value for All Tags 10
	Add Channel Wizard Identification Name Description Driver Diagnostics Diagnostics Capture Write Optimizations Optimization Method Duty Cycle Non-Normalized Float Handling Destring Resitt Values	下一步(N) odbc ODBC Client Disable Write Only Latest Value for All Tags 10 9
	Add Channel Wizard Identification Name Description Driver Diagnostics Diagnostics Capture Write Optimizations Optimization Method Duty Cycle Non-Normalized Float Handling Floating-Point Values	下一步(N) odbc ODBC Client Disable Write Only Latest Value for All Tags 10 g Unmodified
	Add Channel Wizard Identification Name Description Driver Diagnostics Diagnostics Capture Write Optimizations Optimization Method Duty Cycle Non-Normalized Float Handling Floating-Point Values Data Source Settings	下一步(N) odbc ODBC Client Disable Write Only Latest Value for All Tags 10 g Unmodified

完成



2 新建 Device

Add Device Wizard	
Specify the identity of this object.	
Name:	
Devicer	
	下一步(N) 取消
	X
	×
G Add Device Wizard	×
G Add Device Wizard	X
Add Device Wizard	this ID. Options
Add Device Wizard Select the specific type of device associated with depend on the type of communications in use.	this ID. Options
Add Device Wizard Select the specific type of device associated with depend on the type of communications in use. Model:	this ID. Options
Add Device Wizard Select the specific type of device associated with depend on the type of communications in use. Model: Generic ()	this ID. Options
Add Device Wizard Select the specific type of device associated with depend on the type of communications in use. Model: Generic	this ID. Options
Add Device Wizard Select the specific type of device associated with depend on the type of communications in use. Model: Generic ()	this ID. Options
Add Device Wizard Select the specific type of device associated with depend on the type of communications in use. Model: Generic	this ID. Options
Add Device Wizard Select the specific type of device associated with depend on the type of communications in use. Model: Generic	this ID. Options
Select the specific type of device associated with depend on the type of communications in use. Model: Generic V	this ID. Options
Add Device Wizard Select the specific type of device associated with depend on the type of communications in use. Model: Generic V	this ID. Options
Add Device Wizard Select the specific type of device associated with depend on the type of communications in use. Model: Generic ()	this ID. Options
Select the specific type of device associated with depend on the type of communications in use. Model: Generic V	this ID. Options
Select the specific type of device associated with depend on the type of communications in use. Model: Generic	this ID. Options

选择动态表格式读取数据



		X
0	Add Device Wizard	
	Select the method this device should use to retrieve data from the data source. Access Method Selection: Fixed Table Fixed Table Dynamic Table Query Stored Procedure	
	下—步(N) 国	消
	Table Selection	
	Select the table you want to attach to this device. All elements that belong to this table will be accessible from this device.	
	table6	

选择刚刚写进去数据的 table6

	Add Devi	ce Wizard				_ X
G	Add Devi	ce Wizard				
Spe Rea	ecify Enab. ad/Write a	le to automat ccess. Otherw	tically genera vise tags are	te the import generated with	ed tags with h Read Only access.	
Wri	ite Access	:				
Di	sable					
En	able					
						即迷
						4X/FI

Write Access 即写权限,选择"Enable"



	Add Device Wizard	×
7	Add Device wizard	
	Specify the minimum frequency at which the driver will query the data	
	Source for the latest data values.	
	Query Interval (ms).	
	下一步(N) 即	消
		_

默认,下一步,完成

点击 Runtime-Connect,如果已经连接,此步跳过。





Save changes?	
是(Y) 否(N)	取消

点击"是"

3 此时,发现 Device1 右边 tags 区域会自动生产数据库里面的 tags

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3 KEPServerEX 6 Configuration [Connected to Runtime]

<u>File Edit View Tools Runtime Help</u>					
0 🗃 🗃 📓 🏶 🕅 🛱 🗑 🥪 🕤 😤 🔊	👗 🗈 🛝 🗙 🕅				
Project	Tag Name	Address 7	Data Type	Scan Rate	Description
	🔁 table6_id	table6.id	Long	100	
	stable6 VALUE	table6VALUE	String	100	
eite 1	table6_TIMESTAMP	table6TIMESTAMP	Date	100	
E s odbc	table6_QUALITY	table6QUALITY	Long	100	
Device1	table6NUMERICID	table6NUMERICID	Long	100	
	table6NAME	table6NAME	String	100	
Advanced Tags	RecordCount	<internaltag var="RecordCo</td"><td>Long</td><td>100</td><td></td></internaltag>	Long	100	
Alams & Events	😡 MovePrev	<internaltag var="MovePrev</td"><td>Boolean</td><td>100</td><td></td></internaltag>	Boolean	100	
Add Area	MoveNext	<internaltag var="MoveNext</td"><td>Boolean</td><td>100</td><td></td></internaltag>	Boolean	100	
Data Logger	😡 MoveLast	<internaltag var="MoveLast"></internaltag>	Boolean	100	
sibotech	😡 MoveFirst	<internaltag var="MoveFirst"></internaltag>	Boolean	100	
untitled	Move	<internaltag var="Move"></internaltag>	Long	100	
EFM Exporter	Current Record	<internaltag var="CurrentRe</td"><td>Long</td><td>100</td><td></td></internaltag>	Long	100	
Add Poll Group					
DF for Splunk					
Add Splunk Connection					
i Gateway					
Add Datastore					

Event log 信息如下,则表示已成功读取数据库的数据

Date	Time	Source	Event
1 2017/6/30	13:07:47	KEPServerEX\Runtime	Connection Sharing Plug-in V6.2.429.0
(1) 2017/6/30	13:07:47	KEPServerEX\Runtime	Security Policies Plug-in V6.2.429.0
(1) 2017/6/30	13:07:47	KEPServerEX\Runtime	Local Historian Plug-in V6.2.429.0
(1) 2017/6/30	13:07:47	KEPServerEX\Runtime	IDF for Splunk V6.2.429.0
1 2017/6/30	13:07:47	KEPServerEX\Runtime	Scheduler Plug-in V6.2.429.0
(1) 2017/6/30	13:07:47	KEPServerEX\Runtime	IoT Gateway V6.2.429.0
2017/6/30	13:07:47	KEPServerEX\Runtime	Attempting to automatically generate tags for device 'odbc.Device1'.
(1) 2017/6/30	13:07:47	KEPServerEX\loT Gateway	IoT Gateway service starting.
1 2017/6/30	13:07:47	KEPServerEX\loT Gateway	loT Gateway using JRE at [C:\Program Files (x86)\Java\jre1.8.0_101].
1 2017/6/30	13:07:48	Data Logger Plug-in	Table name table6' exists for log group 'untitled' on DSN 'dbtest 1', which is in 'create table once and append' mode.
1 2017/6/30	13:07:48	KEPServerEX\loT Gateway	Running with Java 1.8.0_101 [Oracle Corporation Java HotSpot(TM) Client VM version 25.101-b13].
(1) 2017/6/30	13:07:48	Data Logger Plug-in	Log group 'untitled' is connected to DSN 'dbtest1' and is logging data.
(1) 2017/6/30	13:07:49	KEPServerEX\Runtime	Completed automatic tag generation for device 'odbc.Device1'.

4 点击 QC, 找到 ODBC.Device1, 看到右边能够正常读取数据, 如下所示:

读取到的是 ID 为1 即第一行的数据。

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OPC Quick Cl	ient - 无标题 *					- 25
<u>File Edit View</u>	v <u>T</u> ools <u>H</u> elp					1
D 🗳 🔒 📩	💣 💣 😭 🐰 🖣	6 🖻 🗙				
E: Mepware.KE	EPServerEX.V6	Item ID	/ Data Type	Value	Timestamp	QL
🛅 _DataLo	ogger	Godbc.Device1.CurrentRecord	Long	1	14:55:42.500	Go
Data Lo	ogger.sibotech	Godbc.Device1.Move	Long	0	14:55:42.500	Go
Data Lo	ogger.untitled	Godbc.Device1.MoveFirst	Boolean	0	14:55:42.500	Go
loT_G	ateway.rest client	Godbc.Device1.MoveLast	Boolean	0	14:55:42.500	Go
System		Godbc.Device1.MoveNext	Boolean	0	14:55:42.500	Go
Channe Channe	1Statistics	Godbc.Device1.MovePrev	Boolean	0	14:55:42.500	Go
Channe Channe	11oystem	Codbc.Device1.RecordCount	Long	281392	14:55:59.333	Go
Channe Channe	1 Device1 System	Godbc.Device1.table6NAME	String	Channel1.Device1.r1	14:55:42.500	Gc
Channe Channe	1 sibo1	Godbc.Device1.table6NUMERICID	Long	0	14:55:42.500	Gc
- Channe	11.sibo1. System	<pre>@odbc.Device1.table6QUALITY</pre>	Long	192	14:55:42.500	Go
- odbc. S	Statistics	Codbc Device1 table6 TIMESTAMP	Date	2016-07-26T14:53:11 000	14:55:42 500	Ge
indec9	System	<pre>odbc.Device1table6VALUE</pre>	String	12	14:55:42.500	G
- dbc.[Device1	odbc.Device1.table6_id	Long		14:55:42.500	G
odbc.De	evice1System					
		•	III			F
Date	Time	Event				*
1 2017/6/30	14:55:37	Added group "Channel1.sibo1" to "Kepware.KEPSe	rverEX.V6'.			
1 2017/6/30	14:55:37	Added 10 items to group 'Channel1.sibo1System				
1 2017/6/30	14:55:37	Added 2 items to group 'Channel 1.sibo 1'.				
1 2017/6/30	14:55:37	Added group 'odbc.Device1' to 'Kepware.KEPSen	verEX.V6'.			
1 2017/6/30	14:55:37	Added group 'odbc.Device1System' to 'Kepware	.KEPServerEX.V6'.			
1 2017/6/30	14:55:37	Added 7 items to group 'odbc.Device 1'.				
1 2017/6/30	14:55:37	Added 11 items to group 'odbc.Device1System'.				
1 2017/6/30	14:55:37	Added group 'odbcStatistics' to 'Kepware.KEPSe	erverEX.V6'.			
1 2017/6/30	14:55:37	Added 6 items to group 'odbc.Device1'.				
1 2017/6/30	14:55:37	Added group 'odbcSystem' to 'Kepware.KEPSen	verEX.V6'.			Ξ
1 2017/6/30	14:55:37	Added 12 items to group 'odbcStatistics'.				
1 2017/6/30	14:55:37	Added 4 items to group 'odbcSystem'.				*
Ready					Item Count	: 138

右键点击 MoveNext,选择 Sync Write,输入"1",即写入1。

OPC Quick Cli	ient - 无标题 *	And the second			
File Edit View	v Tools Help				
🗅 🛸 日 📩	💣 💣 😭 👗 🖣	à 🖻 🗙			
E :: Kepware.KE	PServerEX.V6	Item ID	/ Data Type	Value	Timestamp
DataLo	ogger	Godbc.Device1.CurrentRecord	Long	1	13:09:03.121
DataLo	ogger.sibotech	Godbc.Device1.Move	Long	0	13:09:03.121
DataLo	ogger.untitled	Godbc.Device1.MoveFirst	Boolean	0	13:09:03.121
loT_Ga	ateway.rest client	Godbc.Device1.MoveLast	Boolean	0	13:09:03.121
System		Codbc.Device1.MoveNext	Boolean	-	10.00.00.101
Channel	1Statistics	Godbc.Device1.MovePrev	Boolean	New Item	
Channel	1System	Godbc.Device1.RecordCount	Long	C	
Channel	1 Device 1 System	Godbc.Device1.table6_NAME	String	Set Active	
Channel	1 sibo1	Godbc.Device1.table6_NUMERICID	Long	Set Inactive	
Channel	1 sibo1 System	Godbc.Device1.table6_QUALITY	Long		
adbc. S	tatistics	Godbc.Device1.table6_TIMESTAMP	Date	Synchronous	Cache Read
- odbc. S	lystem	Godbc.Device1.table6_VALUE	String	Synchronous	Device Read
adbc.D	Device 1	Godbc.Device1.table6_id	Long	Synchronous	Write
dbc.De	evice1System			-7	
				Asynchronou	s 2.0 Read
		< [m	Asynchronou	s 2.0 Write
Date	Time	Event			Ctrl+X
1 2017/6/30	13:09:00	Added group 'Channel1.sibo1' to 'Kepware.KEPSer	verEX.V6'.	Cut	Cultx
0 2017/6/30	13:09:00	Added 10 items to group 'Channel1.sibo1, System'		Сору	Ctrl+C
0 2017/6/30	13:09:00	Added 2 items to group 'Channel 1 sibo 1'.		Paste	Ctrl+V
1 2017/6/30	13:09:00	Added group 'odbc.Device1' to 'Kepware.KEPServ	erEX.V6".	Delete	Del
1 2017/6/30	13:09:00	Added group 'odbc.Device1System' to 'Kepware.	KEPServerEX.V6'.		
1 2017/6/30	13:09:00	Added 7 items to group 'odbc.Device1'.		Properties	
1 2017/6/30	13:09:00	Added 11 items to group 'odbc.Device1System'.			
1 2017/6/30	13:09:00	Added group 'odbcStatistics' to 'Kepware.KEPSe	rverEX.V6'.		i i
1 2017/6/30	13:09:00	Added 6 items to group 'odbc.Device1'.			
1 2017/6/30	13:09:00	Added group 'odbcSystem' to 'Kepware.KEPServ	erEX.V6'.		
1 2017/6/30	13:09:00	Added 12 items to group 'odbcStatistics'.			
2017/6/30	13:09:00	Added 4 items to group 'odbcSystem'.			
Ready					Item Count: 138

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Item ID	Current Value	Write Value	
💭 odbc.Device1.MoveNext	0	1	Apply
			Cance

确定,就能看到下一行记录的数据。

OPC Quick Cli	ent - 无标题 *					X
<u>File Edit View</u>	/ <u>T</u> ools <u>H</u> elp					
D 🛎 🖬 🛫	💣 💣 😭 👗 🖣	a 🖻 🗙				
🖃 : 💼 Kepware.KE	PServerEX.V6	Item ID	/ Data Type	Value	Timestamp	QL
DataLo	gger	Codbc.Device1.CurrentRecord	Long	2	13:11:06.689	Go
DataLo	gger.sibotech	Godbc.Device1.Move	Long	0	13:09:03.121	Go
DataLo	gger.untitled	Godbc.Device1.MoveFirst	Boolean	0	13:09:03.121	Go
loT_Ga	teway.rest client	Godbc.Device1.MoveLast	Boolean	0	13:09:03.121	Gc
	1 0	Godbc.Device1.MoveNext	Boolean	0	13:09:03.121	Go
Channel	1Statistics	Godbc.Device1.MovePrev	Boolean	0	13:09:03.121	Gc
Channel	1oystem 1.Dovice1	Godbc.Device1.RecordCount	Long	276254	13:11:36.532	Gc
Channel	1 Device 1 System	Godbc.Device1.table6NAME	String	Channel1.Device1.r1	13:09:03.121	Gc
Channel	1 sibo1	Godbc.Device1.table6NUMERICID	Long	0	13:09:03.121	Gc
Channel	1 sibo1 System	Godbc.Device1.table6_QUALITY	Long	192	13:09:03.121	Gc
odbc, S	tatistics	<pre>@odbc.Device1.table6TIMESTAMP</pre>	Date	2016-07-26T14:53:11.000	13:09:03.121	Go
💼 odbcS	ystem	<pre>odbc.Device1.table6VALUE</pre>	String	21123	13:11:06.689	Go
- a odbc.D	levice1	odbc.Device1.table6 id	Long		13:11:06.689	Go
	vice IJystem	<	Ш.			•
Date	Time	Event				
1 2017/6/30	13:09:00	Added 10 items to group 'Channel1.sibo1System'				
1 2017/6/30	13:09:00	Added 2 items to group 'Channel1.sibo1'.				
1 2017/6/30	13:09:00	Added group 'odbc.Device1' to 'Kepware.KEPServ	rerEX.V6'.			
1 2017/6/30	13:09:00	Added group 'odbc.Device1System' to 'Kepware	KEPServerEX.V6'.			
1 2017/6/30	13:09:00	Added 7 items to group 'odbc.Device1'.				
1 2017/6/30	13:09:00	Added 11 items to group 'odbc.Device1System'.				
1 2017/6/30	13:09:00	Added group 'odbcStatistics' to 'Kepware.KEPSe	rverEX.V6'.			
1 2017/6/30	13:09:00	Added 6 items to group 'odbc.Device1'.				
1 2017/6/30	13:09:00	Added group 'odbcSystem' to 'Kepware.KEPServ	rerEX.V6'.			
1 2017/6/30	13:09:00	Added 12 items to group 'odbcStatistics'.				
1 2017/6/30	13:09:00	Added 4 items to group 'odbcSystem'.				
1 2017/6/30	13:11:07	Synchronous write succeeded for 1 items on group	'odbc.Device1'.			*
Ready					Item Count	: 138 //

至此,读取数据库演示完毕。