

# 1. 新建 MS SQL plug-in

按照下图箭头顺序,进行创建

	OPC Router ve	rsion 4.18 x64 - Ti	rial version
Extras Window Help Information Serv	rice 💿 🕶		
Plug-ins 4	OPC UA MS SQL ×		
A 22 Local service			
Cloud / IoT			
Apache Kafka	Microsoft SQL server connections		
MQTT	MS SOL		0
Topfloor	Name: test_sql		
SAP Systems	Connection properties		
ERP Web Services			
Shopfloor	Host/IP/file: WIN2012STD\SQLEXPRESS	_	<b>v</b>
OPC UA Server	Port: 1433 0		
Y OPC UA	Database: mt_test		<b>*</b>
OPC Classic	Windows authentication		
Euroman62	User: sa		
A Euromap 77	Password:		
Charm Devices	- Failover settings	_	
Rarcode reader	Turora scangs		
▲	Activate failover		
RFID Reader	Server:	Port	0 0
Storage			
Relational databases			
Oracle	Connection settings		
SAP HANA	Command time-out (s):		30 🗘
CODBC	Connection time-out (s):		60 0
CLE DB	Parallel connections:		10 ^
MySQL 6	Belling interval (c):		20 ^
File-oriented Databases	Poling interval (s):		30 y
SOLite			
SQLICE dBase	Check connection	OK	Cancel
Time Series Databases			

配置好相关参数后,点击左下角 Check connection, 验证连接。



		MS SQL		0
ame:	test_sql			
Connection pr	operties			
Host/IP/file:	WIN2012STD\SQ	LEXPRESS		
Port:		1433 🗘		
Database:	mt_test			
Windows a	authentication			
User:	sa		1	
Password:	•••••	DB Connection Test		
Failover sett	ings failover	Connection established!		
Server:		ОК		0 🗘
			J	
Connection se	ttings		]	
Connection se	ttings e-out (s):		]	30 🗘
Connection se Command time Connection time	ttings e-out (s): ne-out (r):			30 <b>0</b> 60 <b>0</b>
Connection se Command time Connection tim Parallel connec	ttings e-out (s): ne-out (y):		]	30 \$ 60 \$ 10 \$

## 2. 新建 OPC UA Plug-in

按下图箭头顺序,新建 OPC UA plug-in ,红框部分的 Endpoint URL 即是 KEPServerEX 中定义的,可以拷贝过来。



Extras window Help Information Service	e 🔘 •					
Plug-ins 4	OPC UA 🗙					
Local service						
Apache Kafka						
М М ОТТ	OPO UA Servers: Sets of Acc	ess Data			11	
😤 ThingWorx®	Name			*	HOST/IP	
? 🛞 Rest	F3 OPC (KEPServerEX)				opc.tcp://f3op	c.gre
🛛 😰 Topfloor	test_77UA				opc.tcp://Win	20125
SAP Systems		OPC U	A		•	×
ERP Web Services						
Shopfloor	Name:	test_ua				
OPC UA Server	Client certificate:	Legacy (unsafe)			× + -	۲
OPC UA	Trusted conver certificates	All				
UPC Classic	Hustee server ceremeater	<u>n   m</u>				~
- Heidenhain	Endpoint	opc.tcp://Win2	012Std:49320	)		
Euromap63	Access Path:					
Euromap//	Sample rate (ms):	50	1 Transfe	r OPC null value	S	
Charm Devices	Timoout (mo)	15000	^			
Barcode reader	Inmeout (ms):	15000	Ψ.			
	Array write mode:	Use raw array				~
Storage	Item identification:	Node ID				~
	Anonymous Log-on		✓ Highest	security level		
			Security Onti	0.05		
Crade	Log-on as		Security opu	0115		
	User:		Mode:	None		~
ODBC	Password:		Encryption:	None		~
OLE DB						
MySOL 6	Redundancy server					
File-oriented Databases	- Redundancy settings -					
Microsoft Access	_					_
SQLite	Redundancy server					
all dBase	Item (optional):					0
Time Series Databases						
InfluxDB						

配置完成后,可以点击左下角: Check connection, 验证连接成功。



## 3. 建立 Connection

#### 3.1. 新建 Connection

2			OPC Router version 4.18 x64 - Trial	version	-	□ ×
File	Extras Window Help Information	Service	•			
	Connections		OPC UA MS SQL test_OPC2SQL ×	*	Transfer Objects	ψ×
ѷ	📑 🖬 🤫	P	👼 🎋 🏘 🏷 🔎 🖾 🔶	E Design		
	Lucal service				Data sources and destinations	^
Î	tost OPC2SOL				👻 👬 OPC Transfer Objects	
	test_datachange				W OPC Data Access	
\$	→ test_Euromap2DA				A OPC Methods	
2	→ test_mongda				OPC Structures	
~	→ test_mongdb_odbc				OPC Message	
	→ test_zebra				Database	
	→ test_zebraprinter				► SAP Objects	
	→ testmongodb200ms				ERP Web Services	
					🔝 Heidenhain	
					👫 Apache Kafka	
					MQTT	
					Telegram	
					▶ 🚆 ThingWorx®	
					🔀 E-mail	
					🕨 🖶 Printers	
					Excel	
					Euromap77	~
0 0	PC Router started.					

#### 3.2. 配置 OPC Data Access

从右侧系统树里,选中 OPC Data Access 拖拉到中间空白工作区。

双击 OPC Data Access, 弹出 OPC Data Access 配置窗口

File Extras Window Help Information Service	e 🗣		
Connections 4	OPC UA MS SQL test_OPC2SQL ×	<ul> <li>Transfer Objects</li> </ul>	# ×
۸ 💠 📫 🗲 🎸	👰 Ár 🏟 🔎 🖾 - 🖚 🔳	Design > Search transfer o	bjects
Local service     Docal service     Docal     Docal	Double click to edt OPC Data Access Opuble click to edt OPC Data Access	Data sources and destinations     The source of the s	niects ress
	Configure OPC transfer object.	(♣) OPC Methods ♣ OPC Structure ₩ OPC Structure ■ Database	5
<ul> <li>→ tat_xebopintar</li> <li>→ testmonpodb200ms</li> </ul>	Terns:       Name:     Node 10	<ul> <li>► M SAP Objects</li> <li>■ EAV Veb Sevice</li> <li>■ Heidenhain</li> <li>▲ Apache Kafta</li> <li>■ MOTT</li> <li>● Telegram</li> <li>▶ StimpWox89</li> <li>■ Find</li> <li>▶ Printers</li> <li>■ Excel</li> <li>▶ MongoDB</li> <li>▶ Pinters</li> <li>■ File Objects</li> </ul>	es
	Tag browser	OK Cancel Constant Values	~



#### 位置1 处选择需要建立好的 OPC UA plug-in

点击左下角 "tag browser",在弹出的窗口里选择需要读取数据的相关 tags.



#### 3.3. 配置 Database

从右侧系统树里,选中 Database,拖拉到中间空白区域。

Servic	e •••		
	OPC UA MS SQL test_OPC2SQL ×	Transfer Objects	# ×
Q	🕵 ૠ· ✿· ♪· 🖾 → 🔳 Design	✓ Search transfer objects	
	Connection: test_ua Items Ramp8 Ramp7 Random1	Data sources and destinations	

双击 DataBase, 弹出 Database 配置窗口。进行相关参数配置,如下图:



B access data: test_sql	ete, Procedures within SQL-driven databa	ses
B access data: test_sql	▼ Type: Insert	Ŧ
Canada		
General		
		]
View / Table: biao1	Columnation	•
Available columns:	Columns used:	
	value (Single)	
	[	
	>>	
	<	
	<<	
Check expected amount of data sets		
Consect New theory		
Expect More than		U Uata sets
		OK Cancel

#### 3.4. 完成 Connection 配置

位置1处 Triggers 下面,选中 Time Trigger 拖拉到中间区域,这是一个基于时间的触发将数据从 OPC SERVER 送到 SQL。(触发条件可以根据实际情况,选择基于时间、事件等)。

位置2处,将鼠标放到左侧圆圈位置可以拖拉一条箭头线到右侧,建立关联。



Mr       Production       Design       Production         Production:       test       2       Database       > MI (NPath)         Table:       biao1       Table:       biao1       Image: Solution (Solution)         Ramp8       Ramp7       Ramdom1       Image: Solution (Solution)       Image: Solution (Solution)       Image: Solution (Solution)         Items       Name       Name       Name       Image: Solution)       Image: Solution (Solution)         Ramp8       Ramp7       Random1       Image: Solution)       Image: Solution)       Image: Solution)       Image: Solution)         Items       Image: Solution)       Image: Solution)       Image: Solution)       Image: Solution)       Image: Solution)         Image: Solution)       Image: Solution)       Image: Solution)       Image: Solution)       Image: Solution)         Image: Solution)       Image: Solution)       Image: Solution)       Image: Solution)       Image: Solution)         Image: Solution)       Image: Solution)       Image: Solution)       Image: Solution)       Image: Solution)         Image: Solution)       Image: Solution)       Image: Solution)       Image: Solution)       Image: Solution)         Image: Solution)       Image: Solution)       Image: Solution)       Image: Solutio	JA MS SQL LESI_OPC2SQL X			Ŧ	Transfer Objects	ф >
	Production in the source of the source	► ■ 2 <u>C</u> Time trigger Trigger mode: periodic Cycle: 1000millisecond Start delay: 0millisecond	Database Type: Inset DB access data: test_sql Table: biao1 columns name value	Design	Transfer Objects  Search transfer objects  (J) JSON  XML/XPath  Note  Rest  CSV  Search transfer objects  RFID Reader  Triggers  Con trigger  Con trigger  Con trigger  Con trigger  Con trigger  Scon trigger  SAP trigger Sap tr	ж.: ^

# 4. 运行 Connection

按照箭头顺序执行操作,在弹出窗口中都选择:Yes

0					OPC Router versi	on 4.18 x64 - Trial version	
File	Extras Window Help Information	Service	••				- [
File 🔶 Îtr 🏦 🖓	Extras Window Help Information Go productive Select service Select single elements Select single elements Settings Groups for notifications Mail server Settings Certificate Certificate DA2DA test_datachange test_enromgda test_enromgda	Service	OPC UA	MS SQL PPC Data According provide the second seco	test_OPC2SQL ×	Contraction Time trigger	Preview Database Type: Insert DB access data: test_sql Table: blao1 Columns name value
	✓ test_oPC2SQL     → test_cel     ↓ test_zebra     test_zebraprinter     test_zebraprinter     test_optional test     for productive	]				Cycle: 1000millisecond Start delay: 0millisecond	



# 5. 监视运行状态

	Service						
State	OPC I	UA MS SQL	test_OPC2S	QL ×			
Ð	^ ◀		φ	🔎 🤼		Runti	me
Local service     Service status     Plug-ins	600 ms	5					
✓ ➡ Connections ▶ ➡ P_1	400 ms	1					
OA2DA test datachange	200 ms	-				-	
S test_Euromap2DA test_mongda	0 ms		•			•	
test monadb odbc		1	6:57:56	16:57:57	16:5	7:58	16:57:5
→ test_sql					h h		
test_zebra test_zebraprinter	1/27 4	:57:00 PM			1/27 4:58:00 PM		
😢 testmongodb200ms	Transfe	r date 1/27/2021 4:	:57:58 PM				
						Database	
		Connection: test	ess			Type: Insert DB access data: test_sql	
		connection. test_	ua			Table: biao1	
		Items				Columns	
		Items Ramp7		99978		value	
		Items Ramp7 Ramp8		99978		value o	
		Items Ramp7 Ramp8 Random1	0	99978		value e name e	
		Items Ramp7 Ramp8 Random1	0	99978		value o name o	
		Items Ramp7 Ramp8 Random1	0	99978	Jger	value o	