

# DataLogger for KEPServerEX<sup>®</sup>

# Easy Guide



## Introduction

**DataLogger for KEPServerEX** can pull any data gathered by the server and log it to an ODBC-compliant database, including SQL, MySQL, PostGRE, Oracle, and Microsoft (MS) Access.

Applications for DataLogger may include logging a small set of data to a single table or high volumes of data to multiple databases. Log data at a range of speeds, from milliseconds to minutes to hours.

DataLogger is useful for a variety of scenarios, including:

- Overall Equipment Effectiveness (OEE) calculations that use aggregated data from availability, performance, and quality
- Batch process data that can easily be mapped into a single table and queried based on batch attributes

Follow these steps to configure DataLogger for your logging and analysis needs.



# Follow the Steps

#### Step 1:

Set up a database connection

In the KEPServerEX Configuration's Tree View, select **DataLogger**. Next, add a new log group.



ties	Data Source Pro	operties	
untitled	DSN:	Excel Files	Configure DSN
	User Name:		
	Password:		
100 milliseconds	Login Timeout:	10 (seconds)	
		Untitled DSN: User Name: Password:	untitled     DSN:     Excel Files       User Name:     Password:

For best logging results, create a **System DSN** connection—this works with the default settings provided for KEPServerEX.

Open the **System DSN** tab and click **Add**.

Iser DSN	System DSN	File DSN	Drivers	Tracing	Connection Poolin	g About
System D	ata Sources:					
Name	Driver					Add 🔶
						Remove
					C	onfigure
					10	
	An ODBC Sv	stem data s	ource sto	res informa	ation about how to c	onnect to
		data provid	ler. A Sy	stem data	source is visible to a	
	on this mach		y NI SCI	nces.		

Select the type of driver needed to connect to the database. For testing purposes, try logging data using the Microsoft Access Driver (with extension \*.mdb).

Name	V ^
Driver do Microsoft Paradox (*.db ) Driver para o Microsoft Visual FoxPro	6
 Microsoft Access Driver (*.mdb)	6
Microsoft Access-Treiber (*.mdb) Microsoft dBase Driver (*.dbf)	6
Microsoft dBase VFP Driver (*.dbf)	1
Microsoft dBase-Treiber (*.dbf)	6 +
< <u> </u>	•

Then, click **Finish** to configure the database connection.



In ODBC Microsoft Access Setup, enter a name in Data Source Name and then click Create to specify the location for the database files.



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Login Timeout:

(seconds)

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#### Step 2:

Choose data to log from the server

Open the **Data Map** tab and click **Add** to browse the server for the items that will be logged.

ItemID	Data Type				
Import CSV Export CSV		Add	Browse	Modify	Delete
ble Selection					
<ul> <li>Log to an existing table.</li> <li>Create a new table every time the log group</li> </ul>	in is started (click 'Man Fields' to cust	omize column/item man)			
Create a new table once and always attem			map).		
Table Name (drop down queries tables)	· · · · · · · · · · · · · · · · · · ·				
ble Format					

For testing purposes, choose a System Tag like "Time\_Second."

Include system/internal tag groups	Tag Name /	Data Type	Description	*
AdvancedTees	Date_Year2	DWord		
AdvancedTags	Date_Year4	DWord		
	OateTime	Date		
DataLogger	_DateTimeLocal	Date		
	ExpiredFeatures	String Array		
_IDF_for_Splunk	FullProjectName	String		
	LicensedFeatures	String Array		
LocalHistorian	OpcClientNames	String Array		
Redundancy	ProjectName	String		
	ProjectTitle	String		
SNMP Agent	Time	String		=
	Time_Hour	DWord		10522
🛛 🛟 Data Type Examples	Time_Hour24	DWord		
Simulation Examples	_Time_Minute	DWord		
	_Time_PM	Boolean		
	_Time_Second	DWord		
	_TimeLimitedFeat	String Array		
	TotalTagCount	DWord		+
	4	III		+

Step 3:		A
Select the data logging table and table format	ItemID	Data Type
	SystemTime_Second	DWord
For <b>Table Selection</b> , choose <b>Create a</b> new table once and always attempt to append to this table.	Import CSV       Export CSV         Table Selection <ul> <li>Log to an existing table.</li> </ul>	Add Browse Modify Delete
Then, type in a name for your table in the <b>Table Name</b> field. This example uses "table".	<ul> <li>Create a new table every time the log g</li> <li>Oreate a new table once and always at</li> </ul>	group is started (click 'Map Fields' to customize column/item map). tempt to append to this table (click 'Map Fields' to customize column/item map). table
For <b>Table Format</b> , choose <b>Narrow</b> .	Table Format      O Narrow: Each item shares a single alias      Wide: Each item gets its own alias map	map (i.e. there is a single 'value' column). (i.e. 't1_value' and 't2_value' are in separate columns)

Note: For more information on the Table Selection and Table Format choices, see the **DataLogger product manual**.



#### Step 4:

Trigger the data to log

DataLogger's default settings for new log groups include a preconfigured 500 millisecond trigger.

Click the **Apply changes to the current log group** toolbar icon to start logging data to the MS Access database table (or any other connected database).

Then, open the newly-created database file (saved to the location specified in Step 1) in MS Access to verify that the data was recorded.

If you see data in your table, congratulations! You have successfully logged time-series data from KEPServerEX to a database.

		Table Tools	Access		
File Home Create	External Data Database Tools	Fields Table 👰 1	fell me what you want to do	e.	
K 🚔 🔏 Cut	Y Se ₹↓ Ascending	lection -	$\Sigma$ Totals	ab Replace	Calibri
E Copy	II Z↓ Descending T. Ac	Ivanced + Refresh Save	Spelling Find	→ Go To -	
View Paste		ggle Filter All + X Delet	e 👻 🧮 More 👻	Select * Size to	Switch B I U Windows *
Views Clipboard	Sort & Filter	Rec	ords		indow
Tables					OLIALITY - Click to
secondsTable		Construction of the second	وبرجاه المستخدة فتنافذ وتتبار ويرسد ليتخففه		_QUALITY - Click to A
	and the second se	Time_Second		21/2017 4:02:35 PM	192
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			0 36 2/	21/2017 4:02:36 PM	
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	5 _System 6 _System		0 36 2/	21/2017 4:02:36 PM 21/2017 4:02:37 PM 21/2017 4:02:37 PM	

Next, return to the KEPServerEX configuration window.

To start logging, click the 💽 icon located in the KEPServerEX toolbar. To stop logging, click

the extreme toolbar icon. You can also configure multiple log groups to log data at different rates or to different databases.

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### **Additional Features**

Now that you understand logging basics, you can experiment with other features to customize DataLogger to your environment

You have the option to use the **Batch Identifier** section (located in the **General** tab) to group data rows together. Once set, the database can be searched using the **Batch ID** to pull a group of data at once.

You can also enable DataLogger's store and forward capabilities, which saves data to disk when the connection is disrupted and then writes it to the ODBC source when connectivity is restored.

Batch Identifier					
Batch ID Item:	-				
Data Type:	Default				
Update rate:	1000	*	milliseconds	•	

Store and Forward		
Enabled		
Storage directory:	C:\ProgramData\Kepware\KEPServerEX\V6\DataL	
Maximum storage s	ize (MB): 10	
Memory Properties		
Maximum row buffe	r size: 1000	

# Learn More

For additional information, visit the **DataLogger** web page.

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