

DataLogger for KEPServerEX[®]

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.



Data Source Properties	erties
DSN: Excel Files Configure DSN	untitled
User Name:	
Password:	
Login Timeout: 10 (seconds)	100 milliseconds
User Name: Password: Login Transmitt 10 (seconds)	100 milliseconds

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**.

stem Data Sources: Iame Driver Add Remove Configure	ser DSN	System DSN	File DSN	Drivers	Tracing	Connection Poolin	g About
lame Driver Add Remove Configure	System D	ata Sources:					
Configure	Name	Driver					Add 🔶
Configure							Remove
						C	onfigure
						10	
An ODBC System data source stores information about how to connect to							
the indicated data provider. A System data source is visible to all users on this machine, including NT services		An ODBC Sv	stem data s	ource sto	res informa	tion about how to c	onnect to
		An ODBC Sy the indicated	stem data s data provid	ource sto ler. A Sy	res informa stem data	tion about how to c source is visible to a	onnect to all users

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).

Driver do	Microsoft Paradox (*.db)	6
	ra o Microsoft Visual FoxPro	1 ⊨
Microsof Microsof Microsof	Access Driver (*.mdb) Access-Treiber (*.mdb) dBase Driver (*.dbf)	6 6
Microsof Microsof	dBase VFP Driver (*.dbf) dBase-Treiber (*.dbf)	1 6 +

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.



10

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
Bog to an existing table. Create a new table every time Create a new table once and a Table Name (drop down queries t	the log group is started (dick 'Map always attempt to append to this t ables)	o Fields' to customize column/i able (click 'Map Fields' to custo	tem map). omize column/item i	map).		
able Format						

For testing purposes, choose a System Tag like "Time_Second."

Include system/internal tag groups	Tag Name /	Data Type	Description	*
Include system/internal tag groups AdvancedTags ConnectionSharing CustomAlarms DataLogger IDF_for_Splunk IDF_for_Splunk IoT_Gateway LocalHistorian Scheduler Stheduler System Data Type Examples Simulation Examples	Tag Name /. G Date_Year2 Date_Year4 Date_Time DateTimeLocal ExpiredFeatures FullProjectName LicensedFeatures OpcClientNames ProjectTitle Time_Hour Time_Hour24 Time_PM TimeLimitedFeat TimeLimitedFeat	Data Type DWord DWord Date Date String Array String Array String Array String String String DWord DWord DWord DWord Boolean DWord String Array DWord	Description	
		III		

Step 3:		A
Select the data logging table and table format	ItemID	Data Type
	SystemTime_Second	DWord
For Table Selection , choose Create a new table once and always attempt to append to this table.	Import CSV Export CSV Table Selection Ion to an existing table. 	Add Browse Modify Delete
Then, type in a name for your table in the Table Name field. This example uses "table".	 Create a new table every time the log of the control of the control	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 Table Format , choose Narrow .	Table Format	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 Ex	ternal Data Database Tools	Fields Table ♀ Te	ll me what you want to	do		
View Paste Format Painter	Filter Filter \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	ection - vanced + ggle Filter Refresh All + Delete Reco	∑ Totals ABC Spelling → ☐ More →	ab Replace → Go To → d	Switch Windows *	alibri 3 I U
All Access Obje 🖻 «						
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	1 _System.	_Time_Second	0 35	2/21/2017 4:02:35 PM	192	
	2 _System.	_Time_Second	0 35	2/21/2017 4:02:35 PM	192	
	3 _System.	_Time_Second	0 35	2/21/2017 4:02:36 PM	192	
	4 System.	Time Second	0 35	2/21/2017 4:02:36 PM	192	
	5 System.	Time Second	0 36	2/21/2017 4:02:36 PM	192	
	6 System.	Time Second	0 36	2/21/2017 4:02:37 PM	192	
	7 System.	Time Second	0 36	2/21/2017 4:02:37 PM	192	

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 rormand		
Enabled		
Storage directory:	C:\ProgramData\Kepware\KEPServerEX\V6\DataL	
Maximum storage si	ze (MB): 10	
Memory Properties		
	r size 1000	

Learn More

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

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