

WEINTEK LABS., INC.

# Database Server

## Exporting Data Sampling into Database Server

Demo Project

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## 1. Overview and Operation

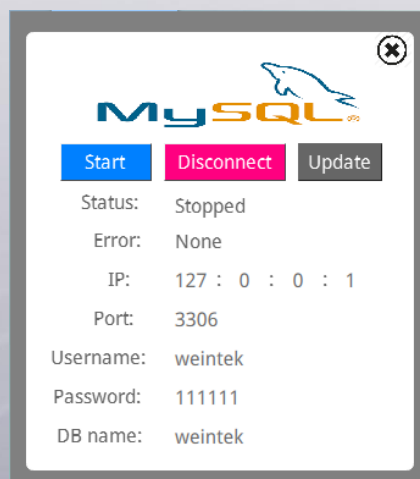
### Overview

For easier data collection, analysis, and management, EasyBuilder supports saving data sampling and event log to a remote database server. Thus, the user can manage data on PC. This demo project uses phpMyAdmin as an example, and introduces how to export data sampling to database server.

Note: Applicable only for cMT Series.

### Operation

1. Install SQL database management tool, set user privileges, and create database.
2. When running on-line/off-line simulation on PC, set the Database Server IP to 127.0.0.1. When synchronizing the database on HMI, please set to the same IP address as the PC running Database Server. Click [SQL server settings] in the lower-right corner of the project screen, and then configure the remote database server. When finished, click [Update] to update the connection parameters, and then click [Start] to connect to Database Server.



- Click [Sync] button in the project to synchronize between local and remote databases. If succeeded, three tables will be generated in the database, and the sampled data is saved in the table named: *<HMI NAME>\_<DATALOG NAME>\_data*.

Server: localhost Database: weintek

Structure SQL Search Query Export Import Operations Privileges Drop

Table	Action	Records	Type	Collation	Size	Overhead
hostname_datalog_data		1,537	MyISAM	ascii_general_ci	101.8 KiB	-
hostname_datalog_data_format		4	MyISAM	ascii_general_ci	2.2 KiB	-
hostname_datalog_data_section		0	MyISAM	ascii_general_ci	1.0 KiB	-
3 table(s)	Sum	1,541	MyISAM	ascii_general_ci	105.0 KiB	0 B

cMT Viewer (Simulation) 2015-12-11 14:11:52

## Database Server

No.	Time	Date	16-bit Signed	32-bit Unsigned	32-bit float	String
1359	14:11:52	11/12/2015	87	860	4350	F
1358	14:11:51	11/12/2015	86	850	4300	E
1357	14:11:50	11/12/2015	85	840	4250	D
1356	14:11:49	11/12/2015	84	830	4200	C
1355	14:11:48	11/12/2015	83	820	4150	B
1354	14:11:47	11/12/2015	82	810	4100	A
1353	14:11:46	11/12/2015	81	800	4050	I
1352	14:11:45	11/12/2015	80	790	4000	Z
1351	14:11:44	11/12/2015	79	780	3950	Y
1350	14:11:43	11/12/2015	78	770	3900	X
1349	14:11:42	11/12/2015	77	760	3850	W
1348	14:11:41	11/12/2015	76	750	3800	V
1347	14:11:40	11/12/2015	75	740	3750	U
1346	14:11:39	11/12/2015	74	730	3700	T
1345	14:11:38	11/12/2015	73	720	3650	S
1344	14:11:37	11/12/2015	72	710	3600	R
1343	14:11:36	11/12/2015	71	700	3550	Q
1342	14:11:35	11/12/2015	70	690	3500	P
1341	14:11:34	11/12/2015	69	680	3450	O
1340	14:11:33	11/12/2015	68	670	3400	N
1339	14:11:32	11/12/2015	67	660	3350	M
1338	14:11:31	11/12/2015	66	650	3300	L

### Data sampling control

**Clear**  
Clears the sampled data in HMI.

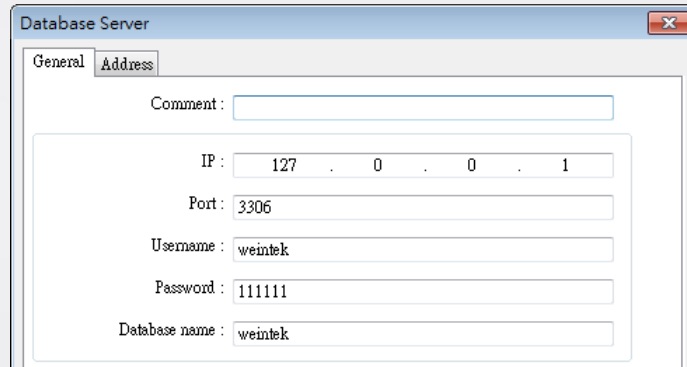
**Sync**  
Synchronizes data to the SQL server.

**Hold**  
Pause sampling data.

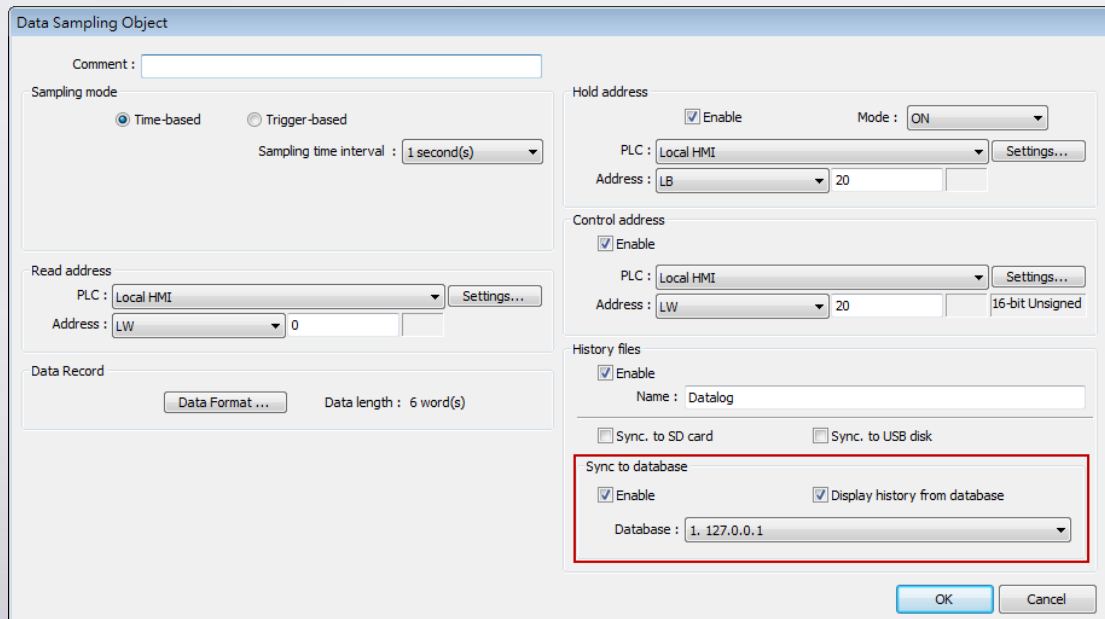
SQL server settings

## 2. Setting up the Screen

**Step 1.** In EasyBuilder click [Objects] » [Database Server] to open the settings dialog box, and then set the parameters.



**Step 2.** Open Data Sampling settings dialog box, set [Sync to database] group box as shown in the following figure.



**Step 3.** Create three Set Word objects, and set to the same address as the Command Address of Database Server. (In this demo project, the address is LW-102, the set style is “Write constant value”, and the values represent: 1: Start, 2: Stop, 3: Update)

**Step 4.** Create another two Set Word objects, and set to the same address as

the Control Address of Data Sampling. (In this demo project, the address is LW-20, the set style is “Write constant value”, and the values represent: 1: Clear, 2: Synchronize)

### 3. Addresses

The addresses of the objects used in this demonstration are listed below.

Object	Address	Object ID	Description
<b>Window 10</b>			
History Data Display		DD_0	Displays data sampling
Set Word	LW-20	SW_0	Clears data sampling in HMI
Set Word	LW-20	SW_1	Synchronize between local and remote databases
Set Bit	LB-20	SB_0	Pauses sampling data
Set Bit	LB-100	SB_1	Opens Direct Window (no. 11) for Database Server configuration
Direct Window	LB-100	WC_1	The location where Direct Window (no. 11) opens
<b>Window 11</b>			
Set Word	LW-102	SW_0	Connects to Database Server
Set Word	LW-102	SW_1	Disconnects from Database Server
Set Word	LW-102	SW_2	Updates Database Server
Word Lamp	LW-100	WL_0	Displays connection status
Word Lamp	LW-101	WL_1	Error indicator
Numeric Input	LW-103	NE_0	Sets the first section of Database Server IP (IP0)
Numeric Input	LW-104	NE_1	Sets the second section of Database Server IP (IP1)
Numeric Input	LW-105	NE_2	Sets the third section of Database Server IP (IP2)
Numeric Input	LW-106	NE_3	Sets the fourth section of Database Server IP (IP3)
Numeric Input	LW-107	NE_4	Sets the connection port
ASCII Input	LW-108	AE_0	Sets the username
ASCII Input	LW-124	AE_1	Sets the password
ASCII Input	LW-140	AE_2	Sets the name of the Database
Set Bit	LB-100	SB_0	Closes window no. 11