

Industry Online Support

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NEWS

How do you connect the Plant Automation Accelerator or COMOS to an SQL server?

Plant Automation Accelerator / SQL Server

https://support.industry.siemens.com/cs/ww/en/view/109751359

Siemens Industry Online Support



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1 Introduction

Different databases can be used with PAA and COMOS. It is easiest and quickest to incorporate the local Access database. This is also the case in the as-delivered status. However, the maximum size of an Access database is limited so it is necessary to switch to the SQL database.

This FAQ response describes how to connect the SQL database first to the PAA or COMOS.

You can then import an Access database (Entry ID: 109751358).

2 Creating an SQL Database

In this section we create a new SQL database step by step. For this we use an existing WinCC database engine.

CAUTION This section gives an example of how to set up an SQL database. It is not permitted to use a WinCC database for Plant Automation Accelerator (PAA) / COMOS in productive operations. You must provide your own database engine with corresponding license.

> 1. Open the SQL Server Management Studio. For this you click the Start menu and in the "Search" input field you enter "sql". Select the SQL Server Manager Studio from the programs displayed.

Figure 2-1
Programs (28)
SQL Server Management Studio SQL Server Compact
SQL Server 2014 Configuration Manager
🛍 SQL Server 2014 Data Profile Viewer
🧚 SQL Server 2014 Database Engine Tuning Advisor
Documents (16)
SQL Server Management Studio
db.sqlite
CurrentSettings-2014-02-13
Files (12)
SOL Server Management Studio
CurrentSettings-2012-05-07
🐌 Backup Files
Solution1
₽ See more results
Could be a second be second be second be a second be a second be a second be a

2. Click the "Connect" button.

Figure 2-2

el Connect to Server								
SQL Server 2008 R2								
Server type:	Database Engine 👻							
Server name:	MSW7\WINCC -							
Authentication:	Windows Authentication 👻							
User name:	MSW7\Administrator 👻							
Password:								
	Remember password							
Conne	Cancel Help Options >>							

3. Right-click "Databases" and select "New Database...".

Figure 2-3



4. In the "Database name" input field you enter a name (in this FAQ response "paa_1") and then click the "OK" button.

Figure 2-4

Select a page	C Script 🗶 🗖	Help			
🚰 General	- Scubr -	ricip			
Poptions Options					
Filegroups	D-t-b				
	Owner:		<default></default>		
		1.1			
	Use full-text i	naexing			
	Database files:				
	Logical Name	File Type	Filegroup	Initial Size (MB)	Autogrowth
	paa_1	Rows	PRIMARY	5	By 1 MB, unrestricted growth
	paa_1_log	Log	Not Applicable	1	By 10 percent, unrestricted grow
Connection					
Constant					
Server					
MSW7\WINCC					
Server: MSW7\WINCC					
Server: MSW7\WINCC Connection: MSW7\Administrator					
Server: MSW7\WINCC Connection: MSW7\Administrator					
Server: MSW7/WINCC Connection: MSW7/Administrator					
Server: MSW7VWINCC Connection: MSW7VAdministrator					
Server: MSW7VVIINCC Connection: MSW7V4dministrator MSW7V4dministrator MSW7V4dministrator MSW7V4dministrator MSW7V4dministrator MSW7V4dministrator MSW7V4dministrator MSW7V4dministrator MSW7V4dministrator MSW7V4dministrator MSW7V4dministrator MSW7V4dministrator MSW7V4dministrator MSW7V4dministrator MSW7V4dministrator					
Server: MSW7/WINCC Connection: MSW7/Administrator M	<	m			,
Server: MSW7XWINCC Connection: MSW7Administrator Wew connection properties Progress Ready	•	III			,
Server, MSW7-WINCC Connection: MSW7-Administrator <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administrator</u> <u>MSW7-Administr</u>	•	III		Add	Remove
MSW7.WINCC Connection: MSW7.Administrator Wew connection properties Progress Ready	۲			Add	Remove
MW7.WINCC Connection: MSW7.VAdministrator MSW7.VAdministrator MSW7.Vadministrator MSW7.Vadministrator MSW7.VAdministrator MSW7	٩ [Add	Remove

5. The new database is created. Close the window.

Figure 2-5



3

Connecting PAA/COMOS to the SQL Database

In this section we connect the PAA to the SQL database.

 Open Data Sources (ODBC). For this you click the Start menu and in the "Search" input field you enter "data source". Select Data Sources (ODBC) from the displayed programs.

Programs (1)
Control Panel (1)
Documents (18)
 Bazysizes.min lazysizes.min lazysizes.min lazysizes.min lazysizes.min
Files (5)
 A3NXR7FWA2 A3AX38C6ZQ A38QCCPEFF A3EX2IL3IP
See more results
data source × Shut down >

2. Click "Add...".

The dialog for creating a data source opens.

ODBC D	ata Source Ad	Iministrato	r				×
User DSN	System DSN	File DSN	Drivers	Tracing	Connection F	ooling	About
<u>U</u> ser Data	Sources:						
Name		Driver				A	<u>d</u> d
dBASE Excel Fi	Files es	Microsoft A Microsoft E	ccess dB/ kcel Drive	ASE Driver r (* xls, * xl	"(".dbf, ".ndx sx, *xlsm, *x	<u>R</u> e	move
•					•		
	An ODBC Us the indicated	er data sour data provide	ce stores er. A Use the currer	information er data sou	about how to rce is only visi	connec ble to ye	ct to ou,

3. Select "SQL Server" in the list and then click the "Finish" button. Figure 3-3

Create New Data Source			×
	SQL Server SQL Server SQL Server SQL Server SQL Server SQL Server SQL Server Client 10.0 SQL Server	to set up a data sou Version 2014.120.4100.01 2005.90.5000.00 6.01.7601.17514 2009.100.4305.00 2011.110.5058.00	rce. Cor Mic Mic Mic Mic Mic
	< <u> </u>		4
	< <u>B</u> ack	Finish Can	cel

3 Connecting PAA/COMOS to the SQL Database

 Enter the "Name" (1), "Description" (2) and "Server" (3) in corresponding input fields. Click the "Next" button.

WARNING The name must begin with "pt_sql_server". If you are using multiple servers, you can add an extension like "_1" or "_2" to "pt_sql_server".

Create a New Data Sourc	e to SQL Server		×				
	ise to						
	What name do you w	vant to use to refer to the data source?					
	Na <u>m</u> e:	pt_sql_server					
	How do you want to	describe the data source?					
	Description:	paa_1	2				
	Which SQL Server d	o you want to connect to?					
	<u>S</u> erver:	MSW7\WINCC	3 -				

5. Click on the "Next >" button.

Figure 3-5

rosoft SQL Server	DSN Configuration		
	How should SQL Sen	ver verify the authenticity of the login ID? NT authentication using the network login ID. rer authentication using a login ID and passwo user. rk library used to communicate with SQL Servition.	rd er,
		Client Configuration	1
	Connect to SQL S additional configur	erver to obtain default settings for the ration options.	
	Login ID:	User	
	Password.		
	< Back	Next > Cancel He	þ

6. Enable the option "Change the default database to:" and in the drop-down list box you select the database you created in the previous section Fehler! Verweisquelle konnte nicht gefunden werden.. Click "Next >"

Create a New Data Sou	rce to SQL Server
	Change the default database to:
	Attach database filename:
	☑ <u>C</u> reate temporary stored procedures for prepared SQL statements and drop the stored procedures:
	Only when you disconnect.
	✓ Use ANSI quoted identifiers.
	Use ANSI nulls, paddings and warnings.
	$\hfill\square$ Use the failover SQL Server if the primary SQL Server is not available.
	< Back Next > Cancel Help

7. Click the "Finish" button.

Create a New Data Sour	rce to SQL Server
	Change the language of SQL Server system messages to: English Use strong encryption for data
	 Perform translation for character data Use regional settings when outputting currency, numbers, dates and times.
	<u>Save long running queries to the log file:</u> <u> C:\Lisers\ADMINI~1\AppData\Local\Temp\OLIER`</u>
	Long query time (milliseconds): 30000
	Log ODBC driver statistics to the log file:
	C:\Users\ADMINI~1\AppData\Local\Temp\STATS Browse
	< Back Finish Cancel Help
	()

8. Test the created connection by clicking the "Test Data Source..." button.

Figure 3-8

ODBC Microsoft SQL Server Setup	×
A new ODBC data source will be created with the following configuration:	
Microsoft SQL Server ODBC Driver Version 06.01.7601 Data Source Name: pt_sql_server Data Source Description: paa_1 Server: MSW7/WINCC Database: paa_1 Language: (Default) Translate Character Data: Yes Log Long Running Queries: No Log Driver Statistics: No Use Regional Settings: No Prepared Statements Option: Drop temporary procedures on disconnect Use Failover Server: No Use ANSI Quoted Identifiers: Yes Use ANSI Quoted Identifiers: Yes Use ANSI Null, Paddings and Warnings: Yes Data Encryption: No	*
Test Data Source OK Can	

9. After successful testing close the dialog box.

SQL Server ODBC Data Source Test	×
Test Results	
Microsoft SQL Server ODBC Driver Version 06.01.7601	*
Running connectivity tests	
Attempting connection Connection established Verifying option settings Disconnecting from server	
TESTS COMPLETED SUCCESSFULLY!	
	Ŧ

10. Click the "OK" button.

Figure 3-10

ODBC Microsoft SQL Server Setup	×
A new ODBC data source will be created with the following configuration:	
Microsoft SQL Server ODBC Driver Version 06.01.7601	*
Data Source Name: pt_sql_server Data Source Description: paa_1 Server: MSW7/WINCC Database: paa_1 Language: (Default) Translate Character Data: Yes Log Long Running Queries: No Log Driver Statistics: No Use Regional Settings: No Prepared Statements Option: Drop temporary procedures on disconnect Use Failover Server: No Use ANSI Quoted Identifiers: Yes Use ANSI Null, Paddings and Warnings: Yes Data Encryption: No	
	~
Test Data Source OK Cano	cel

11. The SQL server connection has been completed. Click the "OK" button.

Figure 3-11		
🚳 ODBC Data Source Administrator 🛛 💌		
User DSN System DSN File DSN Drivers Tracing Connection Pooling About		
User Data Sources:		
Name Driver Add		
dBASE Files Microsoft Access dBASE Driver (*.dbf, *.ndx Excel Files Microsoft Excel Driver (*.xls, *.xlsx, *.xlsx		
MS Access Database Microsoft Access Driver (*.mdb, *.accdb)		
pt_sql_server SQL Server		
An ODBC User data source stores information about how to connect to the indicated data provider. A User data source is only visible to you, and can only be used on the current machine.		
OK Cancel Apply Help		

12. Click the "Open database" icon.

13. In the task bar you click the "Open database" icon. In the "Open database" dialog you enable the "SQL server" option field and in the "Database" and "User name" drop-down list boxes you select the relevant items. Click "OK".

Figure 3-12	
File View Administrator D	uments Extra Plugins Help PCS 7 Plant Automation Accelerator 🗶
	│Query - `\$B\$ \$P\$ @ @ ඕ 월 월 월 집 ☆ / 『 # # # # # # # # # # # # # # # # # #
	Plant Automation Accelerator
	Open database
	Microsoft Jet Oracle SQL server
	Database paa_1
	User name @SETUP
	Салсе
	PCS 7 Plant Automation Accelerator
P= Details	
	Objects count: Save: Check:

As long as no error message is displayed you are now connected successfully with the database. You can now import an Access database (see Entry ID: <u>109751358</u>).