



AdvancedSQLV2 Version 2

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1. Introduction

The program AdvancedSQL serves automatic converting of the data files and the Event files of the Yokogawa recorder from the DX, DXP, FX, DXAdvanced, MV1000 and the GX/GP family.

A further advantage is in the user-defined SQL Statement to put the data into a SQL Database. Here can be consulted batch data, starting times and further characteristics for the automatic file designation.

For an effective conversion it is possible to activate the times of the function in different intervals.

A condition for these functions is the presence of the data files, display data files and/or display Event files in a folder on the Windows PC. By the ftp client function of the Yokogawa recorders it is possible to store the files on the PC. For Further information please read operating instructions of the recorder.

2. Revision

Date	Version	Reason
09.2014	1	first creating
04.2015	2	Update
02.2017	3	Update
04.2017	4	Update
09.2017	5	Update Measurement Insert
08.2018	6	Update
08.2018	7	Update chapter 7.11
09.2018	8	Update chapter 7

3. System Requirements

3.1 Hardware

For the documentation of the test, a paperless Data recorder is required. The Data recorders listed below are supported by this Software:

Recorder	File extension	Data type
GX20 / GP20 www.smartdac.com	.GDS .GEV	Display Data Event Data
DX1000 / DX1000N / DX2000 [DXAdvanced] www.DAQStation.com	.DAD .DAE	Display Data Event Data
DX1000 / DX2000 [with /AS1 Pharma Option]	.DSD .DSE	Display Data Event Data
DX100 / DX200	.DDS .DEV	Display Data Event Data
FX1000	.DAD .DAE	Display Data Event Data
MV1000 / MV2000 [MVAdvanced]	.DAD .DAE	Display Data Event Data
FX100	.DDS .DEV	Display Data Event Data
DX100P / DX200P Pharma-Ausführung	.DBD .DBE	Display Data Event Data
MW100 / MX100	.MXD	Data
DL850	.WDF	Data files

For the analysis using a PC, the following minimum hardware requirements must be met.

- Hard disk capacity: 13 MB
- Memory: 1GB

3.2 Software

The program AdvancedSQL Version 2 is Windows based and requires therefore a Windows Operating System.

3.3 Prerequisite

- Windows .Net Framework 4 Full installation (is checked by setup)
 - <http://www.microsoft.com/en-us/download/details.aspx?id=17718>

3.4 Operating System

The program has been tested on the following platforms:

- Windows XP Professional SP2
- Windows 7 [32bit]
- Windows 7 [64bit]
- Windows 10 [64bit]

4. SQL Statements

We use the normal standard SQL Statement „INSERT INTO“ to put the data into the database.

With this format it is possible to use every SQL based database and the MS Access database. It is also possible to change the SQL Statement to select the data before sending to the DB.

The data are used as keywords with the following format.

#Dataname#

- Add Hash sign (#) before and after the keyword
- Data name as the keyword.

Just read the used keyword in the following capital.



NOTE:

Do not use the Hash sign (#) in other INSERT – Statements like the keywords!

5. Download

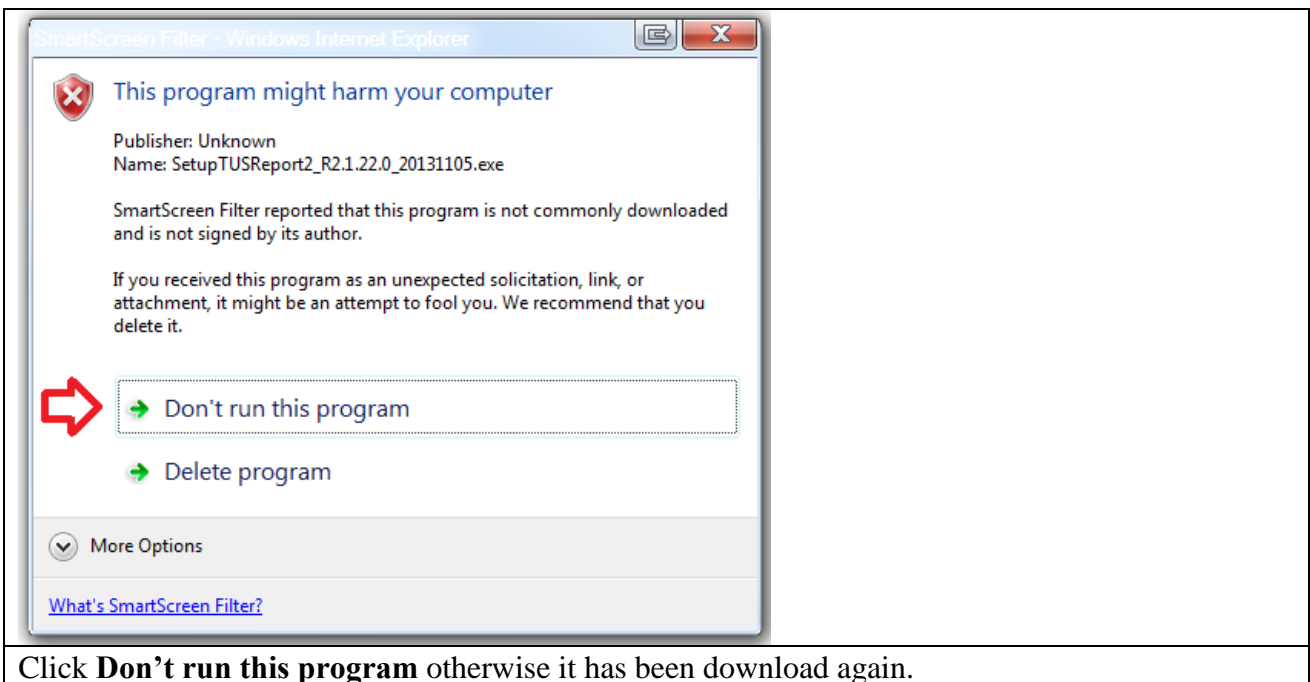
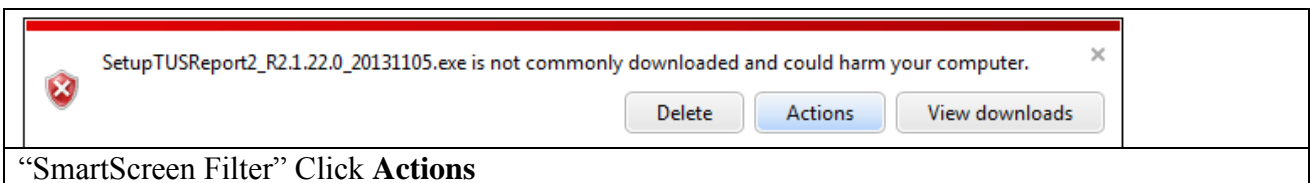
Load the latest version of our solution from the following web Page:

<http://www.AdvancedTools.de>

Check there for “Version 2” and “AdvancedSQL Version 2”.

5.1 Internet Explorer Message

If the Internet Explorer Function enables “SmartScreen Filter” you get sometime the following Message Window.



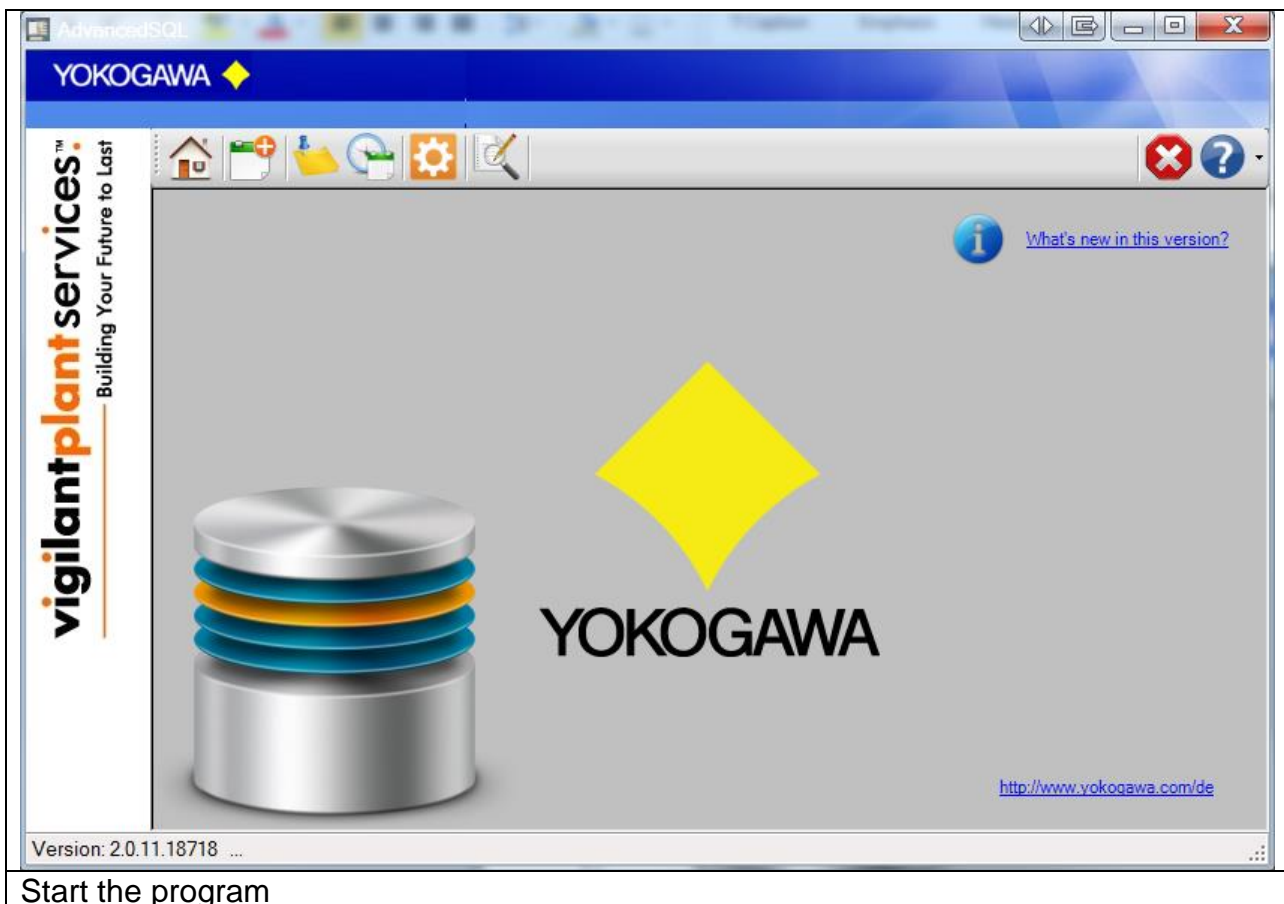
6. AdvancedSQL: Start the program

The program starts in the illustration that follows.

The window consists of two parts. The left part consists of the navigation bar with the menu options:

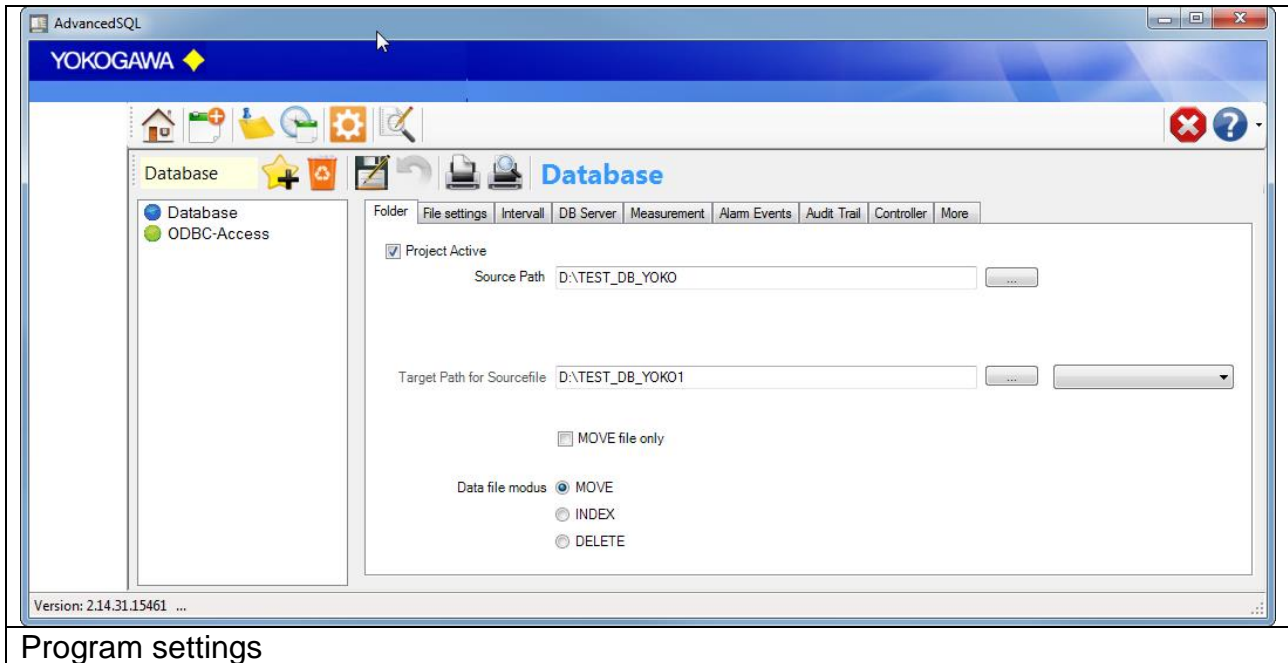
- Home/Main
- Configuration of the Server Settings
- Manual conversion
- Automatic conversion
- Program settings
- Event Report and Error Handling
- Close Program
- Information

The appropriate dialogues are indicated in the right part. The explanations to the individual adjustment possibilities are specified on the following pages.



7. Configuration of the Server Settings

On register sheet “server” the following attitudes are made:



7.1 Add/Delete Button



With this Version it is possible to add more than one Report. With this Button it can be add or delete the report. More than one Report is only available with the Multi Batch Option.

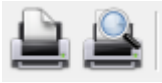
7.2 Button Save/Undo



After all changes at the configuration the attitudes over the Button “save” in the file AdvancedReport.ini must be deposited.

With the Button “undo” can be indicated the last stored attitudes again.

7.3 Print / Print Preview Project configuration



Print the configuration on one sheet.

Print preview
Page 1

AdvancedSQL

06.08.2018

Project: Database
Project Active: True

Folder
Source Path: D:\TEST_DB_YOKO
MOVE file only: False

Interval
Interval: Interval
Data file modus: INDEX

File settings
Recorder Data Format: %gs;
Target Name for Data File: False

DB Server
Connection String Type: MicrosoftSQLServer
Connection : Data Source=
Initial Catalog=UMDataSto
Integrated Security=False;
User ID=
Password=

Measurement
Add Header: True
SQL String: INSERT INTO DXHeader (sFilename, sUserdef1, sUserdef2, sUserdef3, sUserdef4, sFileType, sDeviceType, sSerialNo, sFileMessage, lMessChannelCount, lMathChannelCount, lExtChannelCount, lValidDataCount, sStartTime, sEndTime, sSampleRate, sTimeCorrect, sTriggerDate, sTriggerDate, sTriggerTime, lTriggerNo, lUserInfo, sStartUser, sStopUser, sStartedBy, sStoppedBy, sStartingCond, sDividingCond, lAlarmNum, lEventNum, lBlockNum) VALUES ('#FILENAME#', '#USERDEF1#', '#USERDEF2#', '#USERDEF3#', '#USERDEF4#', '#FILETYPE#', '#DEVICETYPE#', '#SERIALNO#', '#FILEMESSAGE#', '#MEASCHANNELCOUNT#', '#MATHCHANNELCOUNT#', '#EXTCHANNELCOUNT#', '#VALIDDATAACCOUNT#', '#STARTTIME#', '#ENDTIME#', '#SAMPLERATE#', '#TIMECORRECT#', '#TRIGGERDATETIME#', '#TRIGGERDATE#', '#TRIGGERTIME#', '#TRIGGERNO#', '#USERINFO#', '#STARTUSER#', '#STOPUSER#', '#STARTEDBY#', '#STOPPEDBY#', '#STARTINGCOND#', '#DIVIDINGCOND#', '#ALARMNUM#', '#EVENTNUM#', '#BLOCKNUM#)

Add Measurement data: True
Insert Table Name: GXMesures

0000	Table Column Name	Recorder Channel	Table Column Format
0001	sFilename	#FILENAME#	String
0002	sUserdef1	#USERDEF1#	String
0003	sUserdef2	#USERDEF2#	String
0004	sUserdef3	#USERDEF3#	String
0005	sUserdef4	#USERDEF4#	String
0006	sData	#Data#	String
0007	sTime	#Time#	String
0008	dCh001	#CH001MIX#	Double





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Print Preview

11/55

7.4 Project Active Checkbox

To activate or deactivate a Project, check or uncheck this checkbox. An active Project will be marked with a Green Dot at the Project list.

	<input checked="" type="checkbox"/> Project Active	Active Project
	<input type="checkbox"/> Project Active	Deactivate Project
		Selected Project

If a project deactivate, the auto scan routine will ignore this project. Only a manual conversion is possible.

7.5 Folder

The “source folder” defines the place on the hard disk, where the recorder files are stored. The “target folder” marks the place, in which the report files are stored. The “target folder original files” marks the place, in which the original binary source files are stored. Additionally, the “target folder” and the “target folder original files” can be the same.

All subfolders in the “source folder” are scanned. If appropriate files in a subfolder are found, all of the files are exported into the same target folder structure.

The listings can be found easily on the computer by hitting the button right beside the input field.

With the Button “#x” it is possible to set user specific name with the following individual elements

Element name	Configuration
Original file name	#O
Batch name	#B
Serial number	#
Los number (batch)	#
Day	#DD
Month	#MM
Year (two digit)	#YY
Year (four digit)	#YYYY
Hour	#HH
Minute	#mm
Second	#S
serial-number/year of the file	#C
1. Group name	#1
2. Group name	#2
3. Group name	#3
4. Group name	#4
1. Batch comment	#C1

2. Batch comment	#C2
3. Batch comment	#C3

The file name can be individually arranged by joining the individual elements. Also firm indication can be inserted. Please you pay attention to use only windows conformer indications for the name designation.



NOTE:

The “source folder” and “target folder” may not be identical!

7.6 Source file handling modes

It is possible to go around the entire conversion and only shift the data files. During the shift renaming of the files is likewise possible.

It is possible to set a handling mode for the source files. There are three possible modes:

1. Move source file: This mode moves the reported source file into the target folder for binary files.
2. Delete source file: This mode deletes the source file after the report file is created. The file is not deleted into the Recycle Bin!!!
3. Indicates source file: This mode adds the filename after the report file is created into a text file. The file is not moved into another folder. To report the file a second time, the manual mode must be used.

7.7 Attitudes file format

On register sheet “file format” the following attitudes are made:

7.7.1 Name of the data file with the following possibilities

- Original name of the data file
- User specific name with the following individual elements

Element name	Configuration
Original file name	\$O
Batch name	\$B
Serial number	\$
Los number (batch)	\$
Day	\$DD
Month	\$MM

Year (two digit)	\$YY
Year (four digit)	\$YYYY
Hour	\$HH
Minute	\$mm
Second	\$S
serial-number/year of the file	\$C
1. Group name	\$1
2. Group name	\$2
3. Group name	\$3
4. Group name	\$4
1. Batch comment	\$C1
2. Batch comment	\$C2
3. Batch comment	\$C3

The file name can be individually arranged by joining the individual elements. Also firm indication can be inserted. Please you pay attention to use only windows conformer indications for the name designation.

Examples:

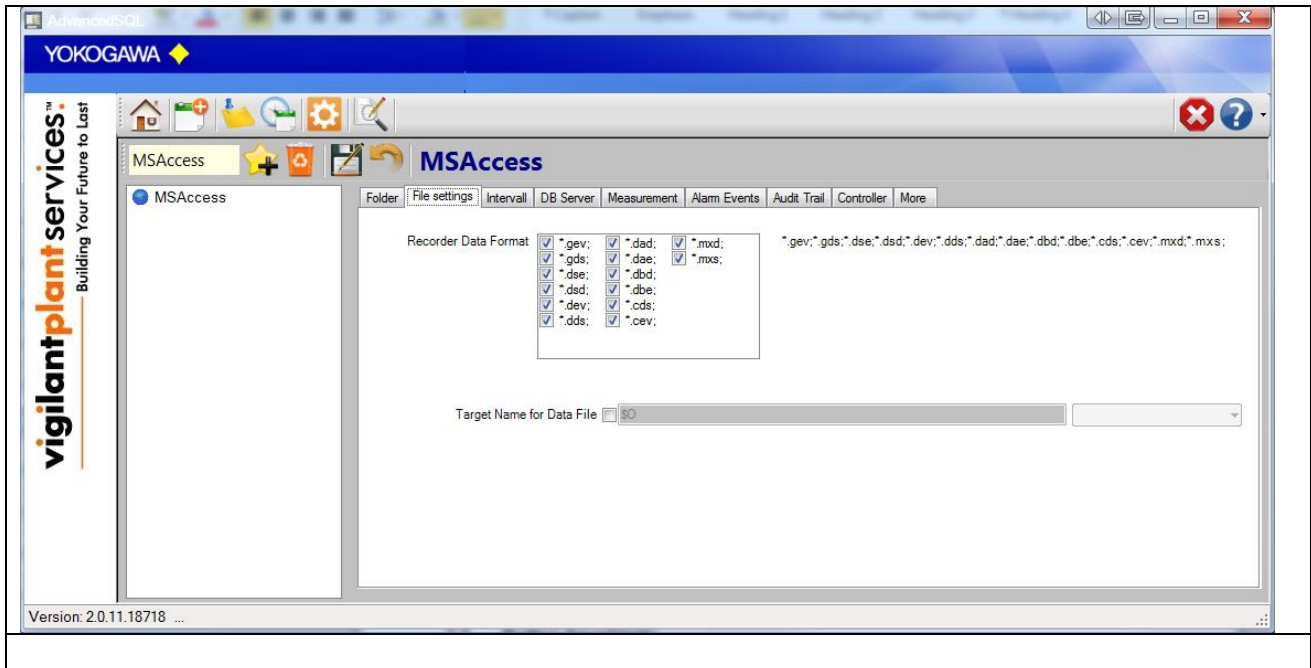
Configuration	Result
\$YYYY\$MM\$DD_Hallo	20040715_Hallo
\$B_\$YYYY-\$MM-\$DD	DXBATCH_2004-07-11
\$1_\$B	group1_DXBATCH

With set the hook in the field “rename source file” also renamed the original file with the same name elements. The file extension will be remaining.



Note:

Not every element will be supported by every file format.



7.8 Attitudes automatic conversion

On the register sheet the attitudes for the temporal interval of the conversion program will convert automatic transacted. At the selected time all data files in the listing are converted. The appropriate original files are likewise shifted into the goal listing.



Note:

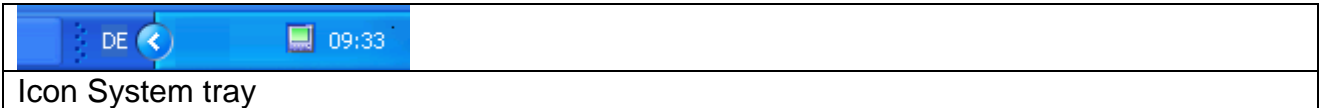
Not every element will be supported by every file format.

Note:

1. If a new file should have been provided into the source listing in the time of the conversion, this is converted automatically in the next interval.
2. Defective files are not converted. The export file is provided and contains a reference.

With the hook in the field with Windows start AdvancedReport with each Windows start set. If the hook is deleted, the automatic start is deactivated.

Automatic converting by an Icon in the system tray (beside the clock right down) is indicated.



The following time intervals are supported:

1. Weekly
Further attitudes necessarily:
 - Day
 - Hour
 - Minute

2. Daily
Further attitudes necessarily:
 - Hour
 - Minute

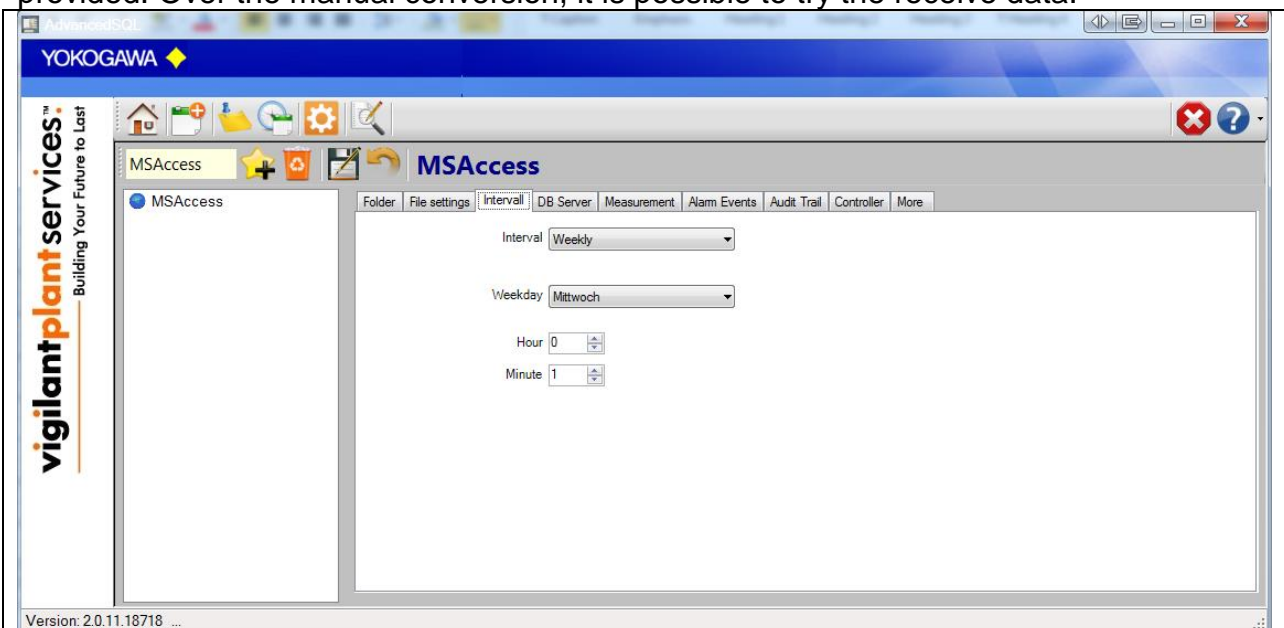
3. Once per hour
Further attitudes necessarily:
 - Minute

4. Interval
Further attitudes necessarily:
 - Minute

Additionally the file extension of the data files must be stopped. Display data files can automatically be converted, display Event file or also both types.

With the Button starting is activated automatic converting.

A defective or manipulated file is recognized, with the export file with a reference is provided. Over the manual conversion, it is possible to try the receive data.



Auto conversion

If the program is running as a service, it is not possible to start the program again. So save the settings, push the save Button. After stopping and restarting the software, the settings are available.

7.9 Database connection

Use this screen to configure the database connection string.
The following database types are possible:

- Oracle (Needs Client)
- Oracle (ODBC)
- SQL Server
- DNS Server
- Access

The following settings are possible:

- Database Type
- Server Name
- Database Name
- Username
- Password

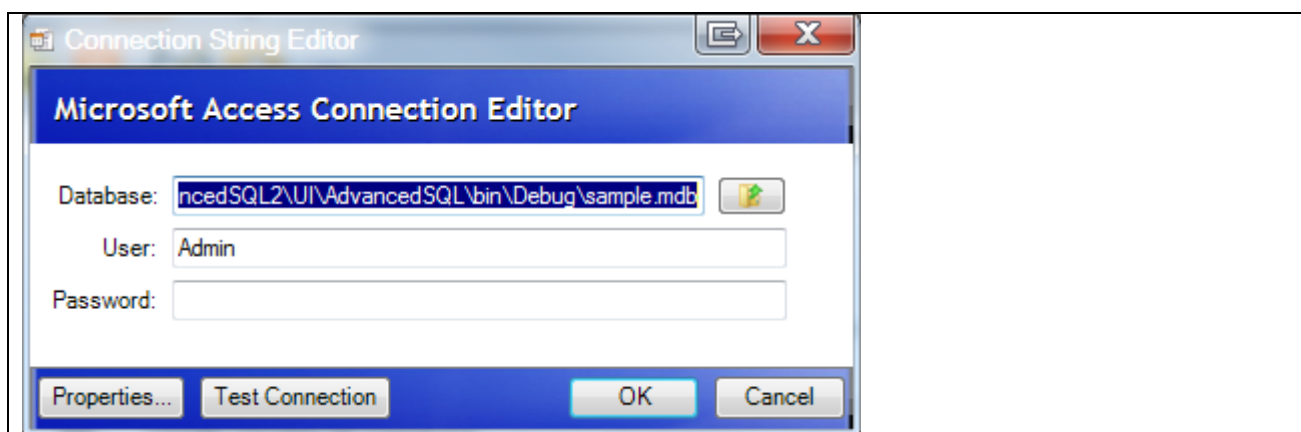
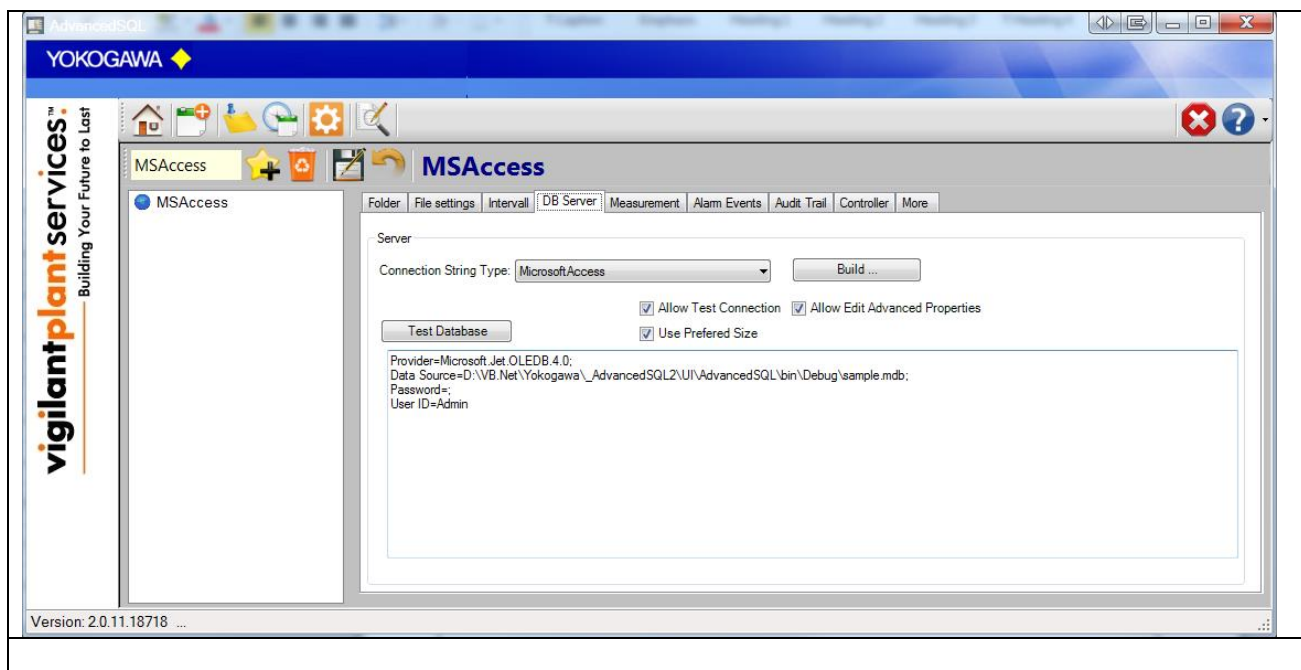
If there is no connection possible, use the textbox under the settings to set the user defined connection string.

Use the button “test connection“ for testing the connection.

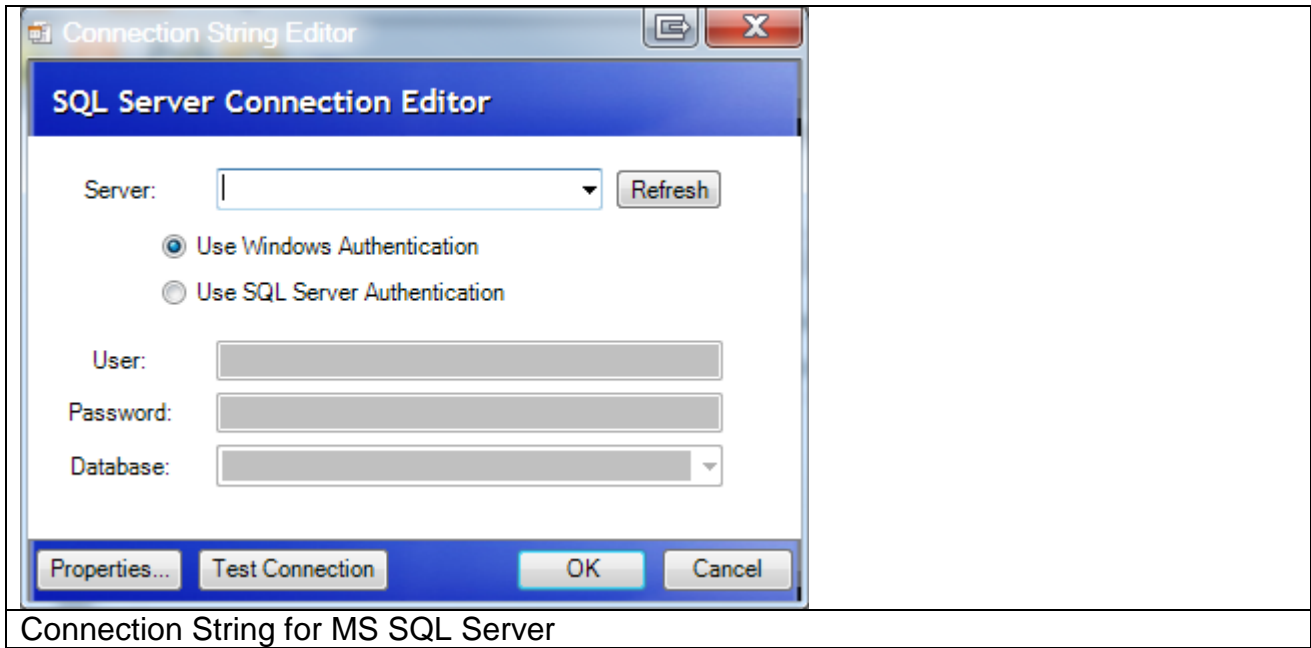
Example

Access Database

Database Type	Access
Server Name	C:\database\Sample.mdb
Database Name	empty
Username	empty
Passwort	empty



Connection String for MS Access Database



Connection String for MS SQL Server

7.10 Insert header data

By checking the checkbox the header data will be inserting into the database, one line for each data file.

Add Header

File Header Check, if entry exist SmartDac & DXAdvanced

SELECT * from DXHeader WHERE sStartTime like #STARTTIME# and sSerialNo like #SerialNo# sample

SQL String #CHxxxMINLAST# == xxx=Channel [+]


```
INSERT INTO DXHeader (sFilename, sUserdef1, sUserdef2, sUserdef3, sUserdef4, sFileType, sDeviceType, sSerialNo, sFileMessage, IMeasChannelCount, IMathChannelCount, IExtChannelCount, IValidDataCount, sStartTime, sEndTime, sSampleRate, sTimeCorrect, sTriggerDate Time, sTriggerDate, sTriggerTime, ITriggerNo, IUserInfo, sStartUser, sStopUser, sStartedBy, sStoppedBy, sStartingCond, sDividingCond, IAlamNum, IEventNum, IBlockNum) VALUES (#FILENAME#, #USERDEF1#, #USERDEF2#, #USERDEF3#, #USERDEF4#, #FILETYPE#,
```

Screenshot


To check, if the data of the file already inserted, use the tickbox “Check, if entry exist”. With the button “sample” add an example of the SQL String. It is possible to use the same keyword like the keywords within the insert SQL String.

Use an unique combination of the data. Like the serial number of the Recorder and the time. In all of these fields it will be check only the **FIRST** time and date string at the data file.

SELECT * from DXHeader WHERE sStartTime like #STARTTIME# and sSerialNo like #SerialNo#
Example



Note: The used SELECT SQL-Table-Columns have to be also available at the INSERT SQL String!!!



Note: This Keywords can be use within every INSERT or SELECT statement!!

The following keywords are defined.

Keyword	Format	DX/ FX	DXP	DXADV/ GX/GP	definition
#Filename#	String	X	X	X	original file name
#Filepath#	String	X	X	X	original path + file name
#FilenameNew#	String	X	X	X	new file name
#FilepathNew#	String	X	X	X	New path and file name
#Userdef1# #Userdef2# #Userdef3# #Userdef4#	String	X	X	X	User defined entry's
#ActualDate#	String	X	X	X	Actual date (import date)
#ActualTime#	String	X	X	x	Actual time (import time)
#FileType#	String	X	X	X	File type
#DeviceType#	String	X	X	X	Recorder
#SerialNo#	String	X	X	X	Recorder serial no
#FileMessage#	String	X	X	X	File message
#MeasChannelCount#	Long	X	X	X	Measurement channel count
#MathChannelCount#	Long	X	X	X	Math channel count
#ExtChannelCount#	Long	X	X	X	External measurement chan. count
#ValidDataCount#	Long	X	X	X	Valid data counter
#StartTime#	String	X	X	X	Start time (Format: Date Time Msec)
#EndTime#	String	X	X	X	End time (Format: Date Time Msec)
#StartTimeEasy#	String			X	Start time (Format: Date Time)
#EndTimeEasy#	String			X	End time (Format: Date Time)
#SampleRate#	String	X	X	X	Sample rate
#TimeCorrect#	String	X	X	X	Time correction
#TriggerDateTime#	String	X	X	X	Trigger date + time
#TriggerDate#	String	X	X	X	Trigger date
#TriggerTime#	String	X	X	X	Trigger time
#TriggerNo#	Long	X	X	X	Trigger no
#UserInfo#	Long	X	X	X	User info
#StartUser#	String	X	X	X	User how start the measurement
#StopUser#	String	X	X	X	User how stop the measurement
#StartedBy#	String	X	X	X	Started by type
#StoppedBy#	String	X	X	X	Stoped by type
#StartingCond#	String	X	X	X	Start condition
#DividingCond#	String	X	X	X	Stop condition
#AlarmNum#	Long	X	X	X	Alarm counter
#EventNum#	Long	X	X	X	Event counter
#BlockNum#	Long	X	X	X	Block number
#Alarmon#	Long	X	X	X	Alarm on
#Alarmlevels#	Long	X	X	X	Alarm level

Keyword	Format	DX/ FX	DXP	DXADV/ GX/GP	definition
#Batchflag#	Long	X	X	X	Batch flg
#Batchapplication#	String	X	X	X	Application text
#Batchsupervisor#	String	X	X		supervisor Name
#Batchmanager#	String	X	X		Batch Manager Name
#Batchname#	String	X	X		Batch name
#Batchno#	Long	X	X	X	Batch number
#BatchCommentuser#	String	X			User how put the batch
#BatchCommenttime#	String	X			Time
#BatchComment1#	String	X	X	X	Comment 1
#BatchComment2#	String	X	X	X	comment 2
#BatchComment3#	String	X	X	X	comment 3
#BatchstartAction#	String			X	Type how started the batch
#BatchStartUser#	String			X	User how started the batch
#BatchstopAction#	String			X	Type how stopped the batch
#BatchStopUser#	String			X	User how stopped the batch
#BatchCMMTusername1#	String		X	X	Comment 1 input user
#BatchCMMTTime1#	String		X	X	Comment 1 input time
#BatchCMMTusername2#	String		X		Comment 2 input user
#BatchCMMTTime2#	String		X		Comment 2 input time
#BatchCMMTusername3#	String		X		Comment 3 input user
#BatchCMMTTime3#	String		X		Comment 3 input time
#BatchText1#	String			X	Batch text 1
#BatchText2#	String			X	Batch text 2
#BatchText3#	String			X	Batch text 3
#BatchText4#	String			X	Batch text 4
#BatchText5#	String			X	Batch text 5
#BatchText6#	String			X	Batch text 6
#BatchText7#	String			X	Batch text 7
#BatchText8#	String			X	Batch text 8
#OperatinglogNum#	Long		X		Operation log number

#Group01# To #Group36#	String	X	X	X	Group name 01 ... Group name 36
#CHXXXMINLAST# #CHXXXMINLAST# (Last Measurement Value of the selected Channel)	Double			X	XXX = Channel no = 001 XXXX = Channel no = 0001 <ul style="list-style-type: none"> Value at Event file Value (min value) at Event file and Display file Example: #CH001MINLAST#, #CH031MINLAST#



IMPORTANT by using STRING Values:

If you use #FileType# you will get >'Event file'< (with apostrophe)

If you use #-sFileType# you will get >Event file< (without apostrophe)

Example

```

INSERT INTO DXHeader (sFilename, sUserdef1, sUserdef2, sUserdef3, sUserdef4, sFileType
, sDeviceType, sSerialNo, sFileMessage, IMeasChannelCount, IMathChannelCount,
IExtChannelCount,
IValidDataCount, sStartTime, sEndTime, sSampleRate, sTimeCorrect, sTriggerDateTime,
sTriggerDate, sTriggerTime, ITriggerNo, IUserInfo, sStartUser, sStopUser, sStartedBy,
sStoppedBy,
sStartingCond, sDividingCond, IAlarmNum, IEventNum, IBlockNum)
VALUES ('#FILENAME#', '#USERDEF1#', '#USERDEF2#', '#USERDEF3#', '#USERDEF4#',
'#FILETYPE#',
'#DEVICETYPE#', '#SERIALNO#', '#FILEMESSAGE#', #MEASCHANNELCOUNT#,
#MATHCHANNELCOUNT#, #EXTCHANNELCOUNT#,
#VALIDDATACOUNT#, '#STARTTIME#', '#ENDTIME#', '#SAMPLERATE#', '#TIMECORRECT#',
'#TRIGGERDATETIME#',
'#TRIGGERDATE#', '#TRIGGERTIME#', #TRIGGERNO#, #USERINFO#, '#STARTUSER#',
'#STOPUSER#', '#STARTEDBY#', '#STOPPEDBY#',
'#STARTINGCOND#', '#DIVIDINGCOND#', #ALARMNUM#, #EVENTNUM#, #BLOCKNUM#)
    
```

7.11 Measurement data insert


By checking the checkbox the measurement data will be inserting into the database, one line for each data file.

<input checked="" type="checkbox"/> Add Measurement data sample	
<input checked="" type="checkbox"/> Check, if entry exist SmartDac & DXAdvanced	<input type="text" value="SELECT * from DXMeas WHERE sTime like '#Time#' and sSerialNo like '#SerialNo#'"/>
Enable inserting data and enable to check is data already exist	


To check, if the data of the file already inserted, use the tickbox “Check, if entry exist”. With the button “sample” add an example of the SQL String. It is possible to use the same keyword like the keywords within the insert SQL String and the keyword of the header SQL String.

Use an unigue combination of the data. Like the serial number of the Recorder and the time. In all of these fields it will be check only the **FIRST** time and date string at the data file.

SELECT * from DXMeas WHERE sTime like '#Time#' and sSerialNo like '#SerialNo#'
Example



IMPORTANT by using STRING Values:
 If you use **#FileType#** you will get >'Event file'< (with apostrophe)
 If you use **#~sFileType#** you will get >Event file< (without apostrophe)



Note:
 The used SELECT SQL-Table-Columns have to be also available at the INSERT SQL String!!!

For inserting the Measurement values there are 2 options. The first option implements the secure Insert statement. The first Option is slow. The second option uses the SQL Statement “SQLBulkCopy” and is faster.

Add Measurement data

Insert slow procedure
 Insert fast procedure

slow procedure

SQL String

```
INSERT INTO DXMeas (sFilename, sUserdef1, sUserdef2, sUserdef3, sUserdef4, sDate,
sTime, dCh001min, dCh001max, dCh002min, dCh002max, dCh003min, dCh003max, dCh004min, dCh004max, dCh005min, dCh006max, dCh006min, dCh005max)
VALUES(#FILENAME#, #USERDEF1#, #SERIAL#, #DEVICETYPE#, #FILEMESSAGE#, #DATE#, #TIME#, #CH002MIN#, #Ch003min#,
#CH002MIN#, #Ch002max#, #CH003MIN#, #Ch003max#, #CH004MIN#, #Ch005min#, #CH006MIN#, #Ch007min#, #CH008MIN#, #Ch009min#)
```

Option One

fast procedure

Insert Table Name:

!! Table Column Name is case sensitive!!!

	Table Column Name	Recorder Channel	Table Column Format
1	sFilename	#Filename#	String
2	sUserdef1	#Userdef1#	String
3	sUserdef2	#Userdef2#	String
4	sUserdef3	#Userdef3#	String
5	sUserdef4	#Userdef4#	String
6	sDate	#Date#	String
7	sTime	#Time#	String
8	dCh001	#CHA002Min#	Double
9	dCh002	#CH0002MIN#	Double

Option Two faster



Note:

This Keywords can be use within every INSERT or SELECT statement!!

The following keywords are defined.

Keyword	Format	Description
#Filename#	String	original file name
#Filepath#	String	original path + file name
#FilenameNew#	String	new file name
#FilepathNew#	String	New path and file name
#Userdef1# #Userdef2# #Userdef3# #Userdef4#	String	User defined entry's
#Date#	String	data
#Time#	String	Time format HH:MM:SS.msec
#ChXXXmin#	Double	XXX / XXXX = Channel no <ul style="list-style-type: none"> Value at Event file Value (min value) at Event file and Display file Example #Ch001min#, #Ch031min#

#ChXXXmax#	Double	XXX / XXXX = Channel no <ul style="list-style-type: none"> • Value at Event file not available (Value = 0) • Value (max value) at Event file and Display file • Example #Ch001max#, #Ch031max#
#CHAXXXmin# #CHCXXXmin# #CHAXXXMAX# #CHCXXXmax#	Double	XXX / XXXX = Channel no <ul style="list-style-type: none"> • Messwert wie oben Mathe Channel define with CHA <ul style="list-style-type: none"> • #ChA001MIN# = Math Channel 1 External Channel define with CHC <ul style="list-style-type: none"> • #ChC003MIN# = External channel 3



IMPORTANT by using STRING Values:

If you use **#FileType#** you will get >'Event file'< (with apostrophe)

If you use **#~sFileType#** you will get >Event file< (without apostrophe)

Example for Option One

```
INSERT INTO DXMeas (sFilename, sUserdef1, sUserdef2, sUserdef3, sUserdef4, sDate,
sTime,dCh001min,dCh001max)
VALUES('#FILENAME#', '#USERDEF1#', '#USERDEF2#', '#USERDEF3#', '#USERDEF4#',
'#DATE#', '#TIME#',#CH0001MIN#, #CH0001MAX#)
```

Example for Option Two

It is necessary to set the Table Name into a separate Textbox.

At the Table it is necessary to put the following settings:

Table column Name	This is the Column Name at the SQL Table. THIS Name is case sensitive, so please check capital letter at the column name!!!
Recorder Channel	Recorder Details from the Table before For an easy use, it will be display a combo box by double click into the cell.
Table Column Format	Supports "String" and "Double" For an easy use, it will be display a combo box by double click into the cell.



Note:

This Keywords can be use within every INSERT or SELECT statement!!

Insert Table Name

	Table Column Name	Recorder Channel	Table Column Format
1	sFilename	#Filename#	String
2	sUserdef1	#DEVICETYPE#	String
3	sUserdef2	#Userdef2#	String
4	sUserdef3	#Userdef3#	String
5	sUserdef4	#Userdef4#	String
6	sDate	#Date#	String
7	sTime	#Time#	String
8	dCh001min	#Ch001min#	Double
9	dCh001max	#Ch002data#	Double

<div style="font-size: 0.8em; padding: 2px;"> ▲ ▼ #EVENTACTDATATY #CH0001MIN# #CH0001MAX# #CH0002MIN# #CH0002MAX# #CH0003MIN# #CH0003MAX# #CH0004MIN# </div>	<div style="font-size: 0.8em; padding: 2px;"> String Double </div>
--	---

Fast insert

7.12 Insert Alarm data


With the activating of the functions of alarms spend, every alarm generate a new database entry.

<input checked="" type="checkbox"/> Add Alarm	
Alarm Messages	
<input checked="" type="checkbox"/> Check, if entry exist SmartDac & DXAdvanced	<div style="border: 1px solid gray; padding: 2px;"> SELECT * from DXAlarm WHERE sDateOccurence like '#ALARMSTARTDATE#' and sTimeOccurence Like '#ALARMSTARTTIME#' and sSerialNo like '#SerialNo#' </div> <div style="text-align: right; margin-top: 5px;"> <input type="button" value="sample"/> </div>
SQL String	<div style="border: 1px solid gray; padding: 2px;"> INSERT INTO DXAlarm (sFilename, JChannel, IAlamLevel, sType, sDateOccurence, sTimeOccurence, ISerialNoOccurence, sDateRelease, sTimeRelease, ISerialNoRelease, sSerialNo) VALUES (#FILENAME#, #ALARMCHANNELNO#, #ALARMLEVEL#, #ALARMTYPE#, #ALARMSTARTDATE#, #ALARMSTARTTIME#, #ALARMSTARTNO#, #ALARMENDDATE#, #ALARMENDTIME#, #ALARMENDNO#, #SERIALNO#) </div>
Enable inserting data and enable to check is data already exist	


To check, if the data of the file already inserted, use the tickbox “Check, if entry exist”. With the button “sample” add an example of the SQL String. It is possible to use the same keyword like the keywords within the insert SQL String and the keyword of the header SQL String.

Use an unique combination of the data. Like the serial number of the Recorder and the time. In all of these fields it will be check only the **FIRST** time and date string at the data file.

<pre>SELECT * from DXAlarm WHERE sDateOccurence like '#ALARMSTARTDATE#' and sTimeOccurence Like '#ALARMSTARTTIME#' and sSerialNo like '#SerialNo#'</pre>
Example



IMPORTANT by using STRING Values:
 If you use **#FileType#** you will get >'Event file'< (with apostrophe)
 If you use **#~sFileType#** you will get >Event file< (without apostrophe)



Note:
 The used SELECT SQL-Table-Columns have to be also available at the INSERT SQL String!!!



Note:

This Keywords can be use within every INSERT or SELECT statement!!

The program uses the following keywords.

Keyword	Format	DX/ FX	DXP	DXADV/ GX/GP	Description
#Filename#	String	X	X	X	original file name
#Filepath#	String	X	X	X	original path + file name
#FilenameNew#	String	X	X	X	new file name
#FilepathNew#	String	X	X	X	New path and file name
#Userdef1# #Userdef2# #Userdef3# #Userdef4#	String	X	X	X	User defined entry's
#AlarmChannelNo#	String	X	X	X	Channel no
#AlarmLevel#	Long	X	X	X	Alarm Level
#AlarmType#	String	X	X	X	Alarm type (HH / LL / H / L)
#AlarmTypeShort#	String		X	X	Alarm type (HH / LL / H / L)
#AlarmStartDate#	String	X	X	X	Alarm date start
#AlarmStartTime#	String	X	X	X	Alarm time start
#AlarmStartNo#	Long	X	X	X	Measurement no at start time
#AlarmEndDate#	String	X	X		Alarm date end
#AlarmEndTime#	String	X	X		Alarm time end
#AlarmEndNo#	Long	X	X		Measurement no at end time
lAlarmAckNo	Long		X		Measurement no at acknowledgment
sAlarmAckDate	String		X		Date at acknowledgment
sAlarmAckTime	String		X		Time at acknowledgment
lAlarmAckUserFlag	Long		X		User flag at acknowledgment
sAlarmAckUser	String		X		User at acknowledgment

#Group01# To #Group36#	String	X	X	X	Group name 01 ... Group name 36
------------------------------	--------	---	---	---	---------------------------------------



IMPORTANT by using STRING Values:

If you use #FileType# you will get >'Event file'< (with apostrophe)

If you use #~sFileType# you will get >Event file< (without apostrophe)

Example

```
INSERT INTO DXAlarm (sFilename,IChannel, IAlarmLevel, sType, sDateOccurence,  
sTimeOccurence, ISerialNoOccurence, sDateRelease, sTimeRelease, ISerialNoRelease,  
sSerialNo )  
VALUES ('#FILENAME#', #ALARMCHANNELNO#, #ALARMLEVEL#, '#ALARMTYPE#',  
'#ALARMSTARTDATE#', '#ALARMSTARTTIME#', #ALARMSTARTNO#, '#ALARMENDDATE#',  
'#ALARMENDTIME#', #ALARMENDNO#, '#SERIALNO#')
```

7.13 Insert events

With the activating of the functions of messages spend, every message generate a new database entry.

Add Events

Event Messages sample

Check, if entry exist
SmartDac & DXAdvanced

SELECT * from DXEvents WHERE sEventDate like '#EVENTDATE#' and sEventTime Like '#EVENTTIME#' and sSerialNo like '#SerialNo#'

SQL String [+]

INSERT INTO DXEvents (EventScanNo, IEventMessageNo, IEventUserInfo, sEventDate, sEventTime, sEventStr, sEventUser, sEventData Type, sSerialNo)
Values (#EVENTSCANNO#, #EVENTMESSAGENO#, #EVENTUSERINFO#, '#EVENTDATE#', '#EVENTTIME#', '#EVENTSTR#', '#EVENTUSER#', '#EVENTACTDATATYPE#', '#SERIALNO#')

Enable inserting data and enable to check is data already exist

To check, if the data of the file already inserted, use the tickbox “Check, if entry exist”. With the button “sample” add an example of the SQL String. It is possible to use the same keyword like the keywords within the insert SQL String and the keyword of the header SQL String.

Use an unique combination of the data. Like the serial number of the Recorder and the time. In all of these fields it will be check only the **FIRST** time and date string at the data file.



Note:

The used SELECT SQL-Table-Columns have to be also available at the INSERT SQL String!!!

SELECT * from DXEvents WHERE sEventDate like '#EVENTDATE#' and sEventTime Like '#EVENTTIME#' and sSerialNo like '#SerialNo#'

Example



IMPORTANT by using STRING Values:

If you use **#FileType#** you will get >'Event file'< (with apostrophe)

If you use **#~sFileType#** you will get >Event file< (without apostrophe)



Note:

This Keywords can be use within every INSERT or SELECT statement!!

The program uses the following keywords.

Keyword	Format	DX/ FX	DXP	DXADV/ GX/GP	Description
#Filename#	String	X	X	X	original file name
#Filepath#	String	X	X	X	original path + file name
#FilenameNew#	String	X	X	X	New file name
#FilepathNew#	String	X	X	X	New path and file name
#Userdef1# #Userdef2# #Userdef3# #Userdef4#	String	X	X	X	User defined entry's
#EventScanNo#	Long	X	X	X	Scan no
#EventMessageNo#	Long	X	X	X	Message no
#EventUserInfo#	Long	X	X	X	User info
#EventDate#	String	X	X	X	Date
#EventTime#	String	X	X	X	Time
#EventStr#	String	X	X	X	Event string
#EventUser#	String	X	X	X	User
#EventDataType#	String	X	X	X	Data type
sEventActDate	String			X	Action date
sEventActTime	String			X	Action time
sEventActDataType	String			X	Action data type

#Group01# To #Group36#	String	X	X	X	Group name 01 ... Group name 36
------------------------------	--------	---	---	---	---------------------------------------



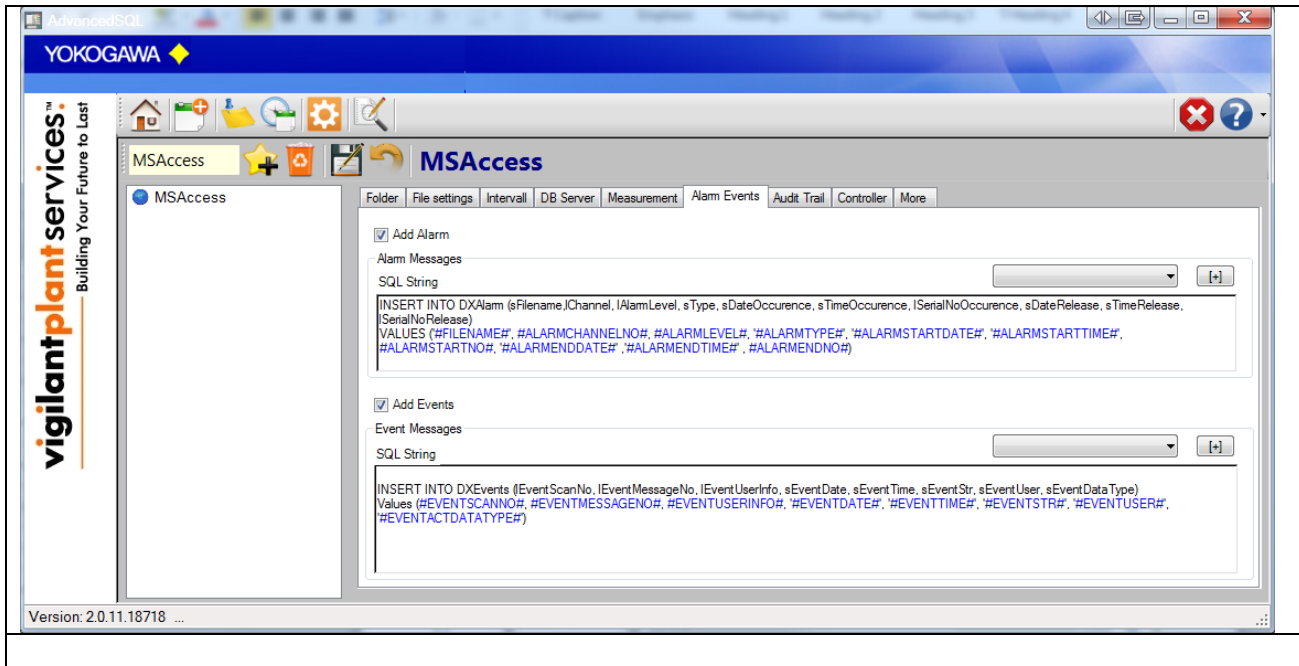
IMPORTANT by using STRING Values:

If you use **#FileType#** you will get >'Event file'< (with apostrophe)

If you use **#~sFileType#** you will get >Event file< (without apostrophe)

Example

```
INSERT INTO DXEvents (IEventScanNo, IEventMessageNo, IEventUserInfo, sEventDate,
sEventTime, sEventStr, sEventUser, sEventDataType)
Values (#EventScanNo#, #EventMessageNo#, #EventUserInfo#, #EventDate#, #EventTime#,
#EventStr#, #EventUser#, #EventDataType#)
```

The screenshot displays the MSAccess software interface within an AdvancedSQL environment. The interface includes a sidebar with the 'vigilant plant services' logo and the tagline 'Building Your Future to Last'. The main window is titled 'MSAccess' and features a menu bar with options like 'Folder', 'File settings', 'Interval', 'DB Server', 'Measurement', 'Alarm Events', 'Audit Trail', 'Controller', and 'More'. Two sections are visible: 'Add Alarm' and 'Add Events'. Each section contains a 'SQL String' field with a dropdown menu and a '+' button. The 'Add Alarm' section contains the following SQL code:

```
INSERT INTO DXAlarm (sFilename, IAlarmLevel, sType, sDateOccurrence, sTimeOccurrence, ISerialNoOccurrence, sDateRelease, sTimeRelease, ISerialNoRelease) VALUES (#FILENAME#, #ALARMCHANNELNO#, #ALARMLEVEL#, #ALARMTYPE#, #ALARMSTARTDATE#, #ALARMSTARTTIME#, #ALARMSTARTNO#, #ALARMENDDATE#, #ALARMENDTIME#, #ALARMENDNO#)
```

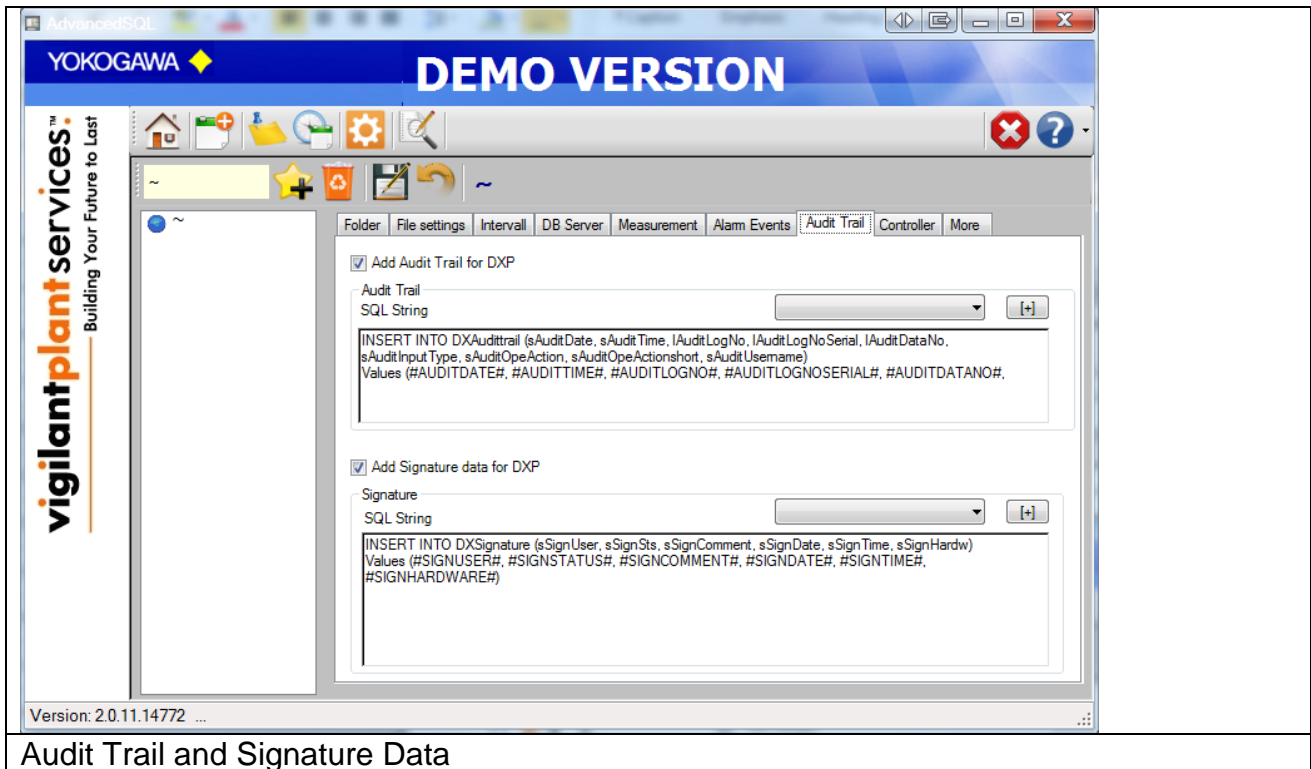
The 'Add Events' section contains the following SQL code:

```
INSERT INTO DXEvents (IEventScanNo, IEventMessageNo, IEventUserInfo, sEventDate, sEventTime, sEventStr, sEventUser, sEventData Type) Values (#EVENTSCANNNO#, #EVENTMESSAGENNO#, #EVENTUSERINFO#, #EVENTDATE#, #EVENTTIME#, #EVENTSTR#, #EVENTUSER#, #EVENTACTDATATYPE#)
```

At the bottom left of the window, the version number 'Version: 2.0.11.18718 ...' is displayed.

7.14 DXP Audit Trail

The operating announcements, the audit Trail, the dates of recorder DX100P and DX200P are inserted by the putting in the report file. All announcements are given since the last file, independently of the perhaps later measuring data recording.





Note:

This Keywords can be use within every INSERT or SELECT statement!!

The following keywords are defined.

Keyword	Format	Description
#Filename#	String	original file name
#Filepath#	String	original path + file name
#FilenameNew#	String	new file name
#FilepathNew#	String	New path and file name
#Userdef1# #Userdef2# #Userdef3# #Userdef4#	String	User defined entry's
#AuditDate#	String	date
#AuditTime#	String	Time
#AuditLogNo#	Long	Log no
#AuditLogNoSerial#	Long	Log serialno
#AuditConfigSerial#	Long	Audit config no
#AuditDataNo#	Long	Audit data no
#AuditInputType#	String	Input type
#AuditOpeAction#	String	Operating Action
#AuditOpeActionsshort#	String	Operating Action shortform
#AuditUsername#	String	Username



IMPORTANT by using STRING Values:

If you use **#FileType#** you will get >'Event file'< (with apostrophe)

If you use **#~sFileType#** you will get >Event file< (without apostrophe)

Example

```
INSERT INTO DXEvents (IEventScanNo, IEventMessageNo, IEventUserInfo, sEventDate,
sEventTime, sEventStr, sEventUser, sEventDataType)
Values (#EVENTSCANNO#, #EVENTMESSAGENO#, #EVENTUSERINFO#, '#EVENTDATE#',
'#EVENTTIME#', '#EVENTSTR#', '#EVENTUSER#', '#EVENTACTDATATYPE#')
```

7.15 Signatur Daten DXP

The signature data of the dates of recorder DX100P and DX200P are inserted by the putting in the database.



Note:

This Keywords can be use within every INSERT or SELECT statement!!

The following keywords are defined.

Keyword	Format	Description
#Filename#	String	original file name
#Filepath#	String	original path + file name
#FilenameNew#	String	new file name
#FilepathNew#	String	New path and file name
#Userdef1#	String	User defined entry's
#Userdef2#		
#Userdef3#		
#Userdef4#		
#SignUser#	String	User
#SignSts#	String	Status
#SignComment#	String	Comment
#SignDate#	String	Date
#SignTime#	String	Time
#SignHardw#	String	Signature Hardware



IMPORTANT by using STRING Values:

If you use **#FileType#** you will get >'Event file'< (with apostrophe)

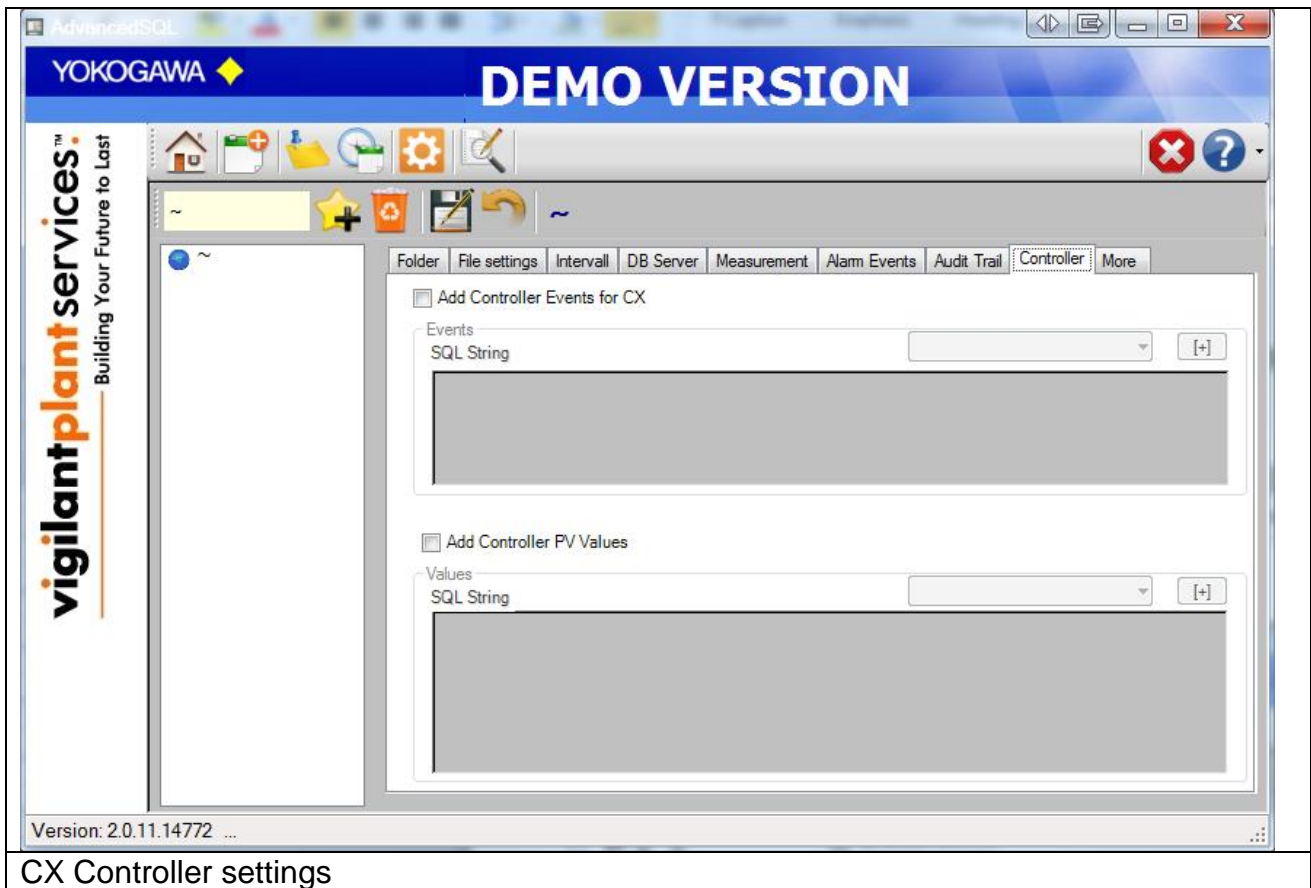
If you use **#~sFileType#** you will get >Event file< (without apostrophe)

Example

```
INSERT INTO DXSignature (sSignUser, sSignSts, sSignComment, sSignDate, sSignTime,
sSignHardw)
Values (#SignUser#, #SignSts#, #SignComment#, #SignDate#, #SignTime#, #SignHardw#)
```

7.16 CX Controller

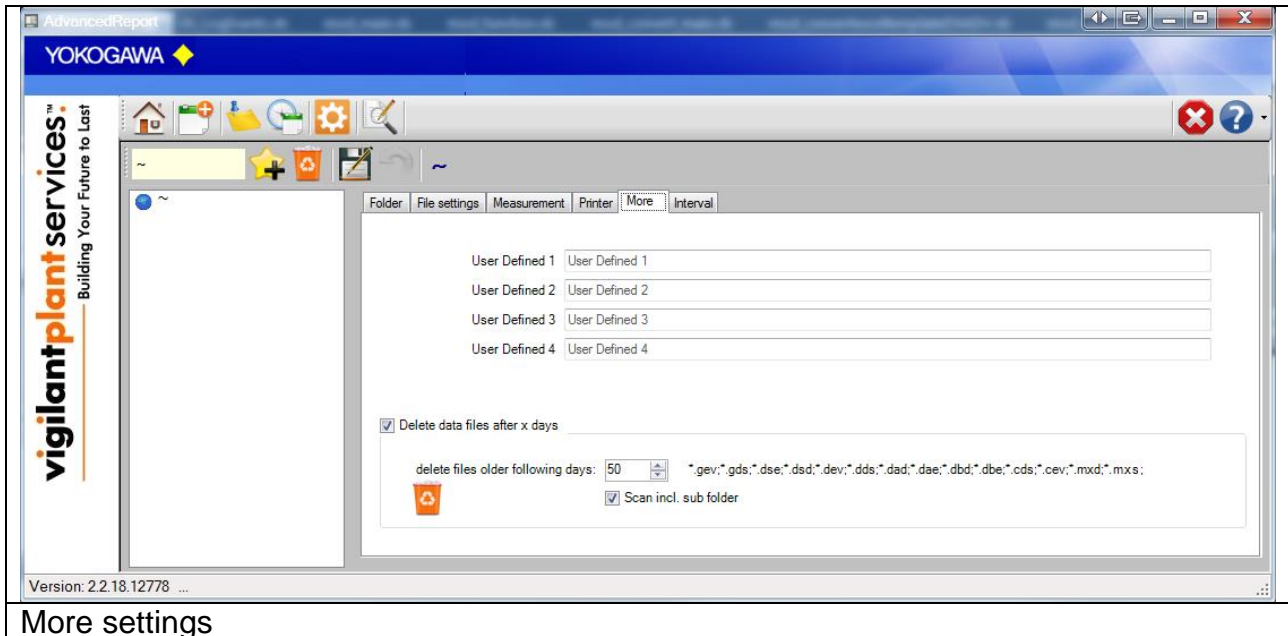
The controller values of the dates of recorder CX100 and CX200 are inserted by the putting in the database.



CX Controller settings

7.17 More Settings

On register sheet “More settings” the following attitudes are made:



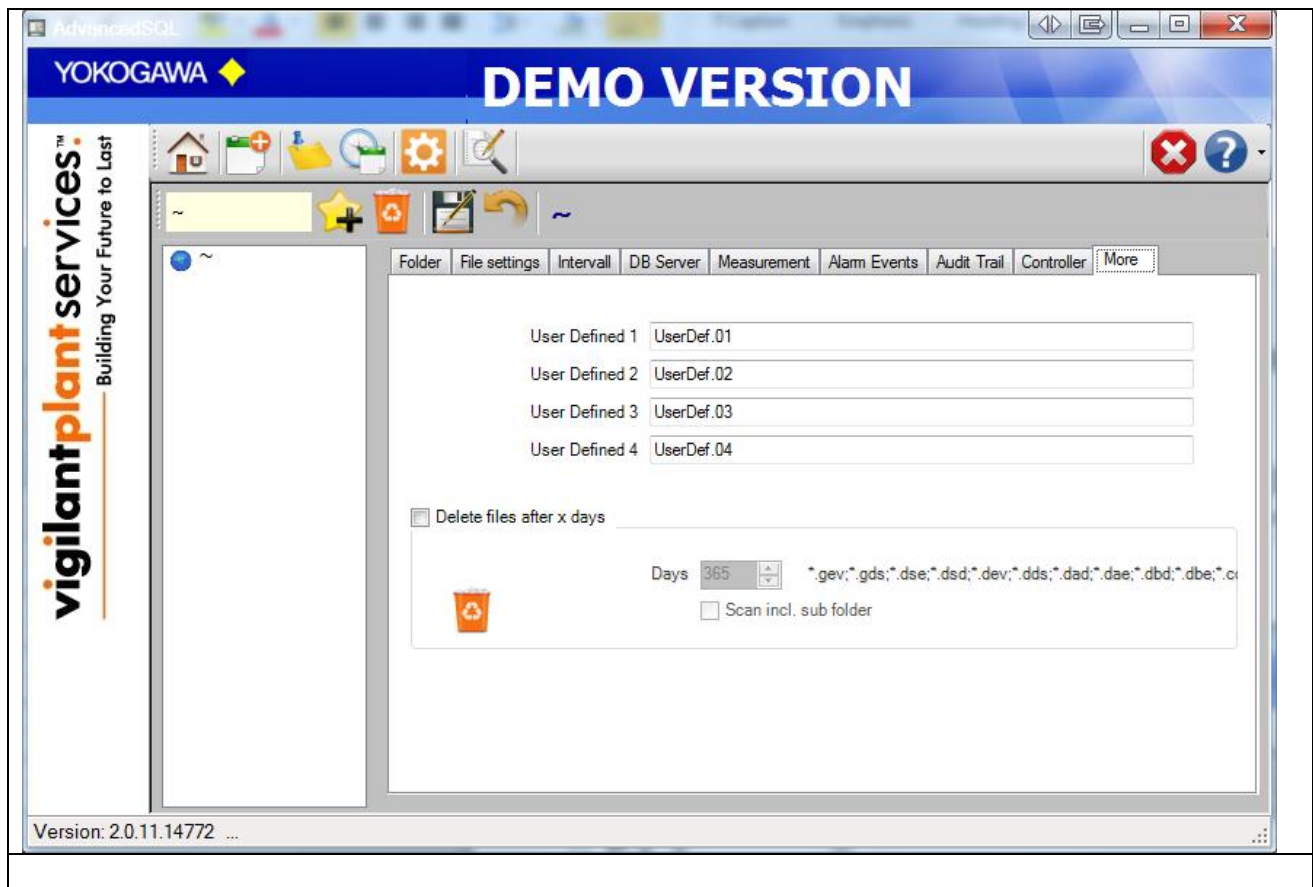
7.17.1 Freely defined entries

The comments can be inserted up to four own firm. The entries are registered at the beginning of the target file.

These entries are read in again before each report will be created. It is possible to change and so individually provide these entries by further programs

7.17.2 Delete Files after x days

This Function will be delete all data files within older than the defined days. Also the subfolder will be discover for older files.



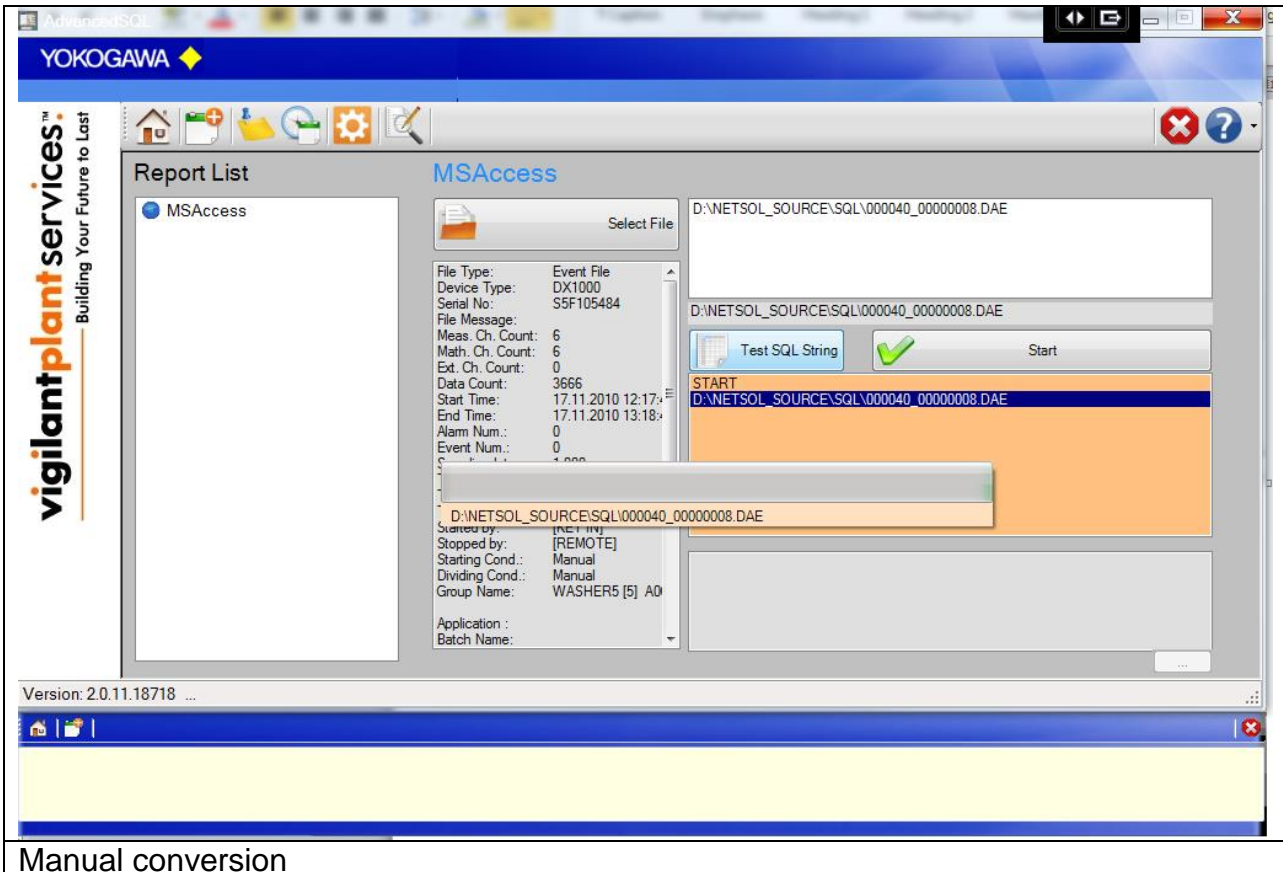
7.18 Button Save/Undo

After all changes at the configuration the attitudes over the Button “save” in the file AdvancedSQL.ini must be deposited.

With the Button “undo” can be indicated the last stored attitudes again.

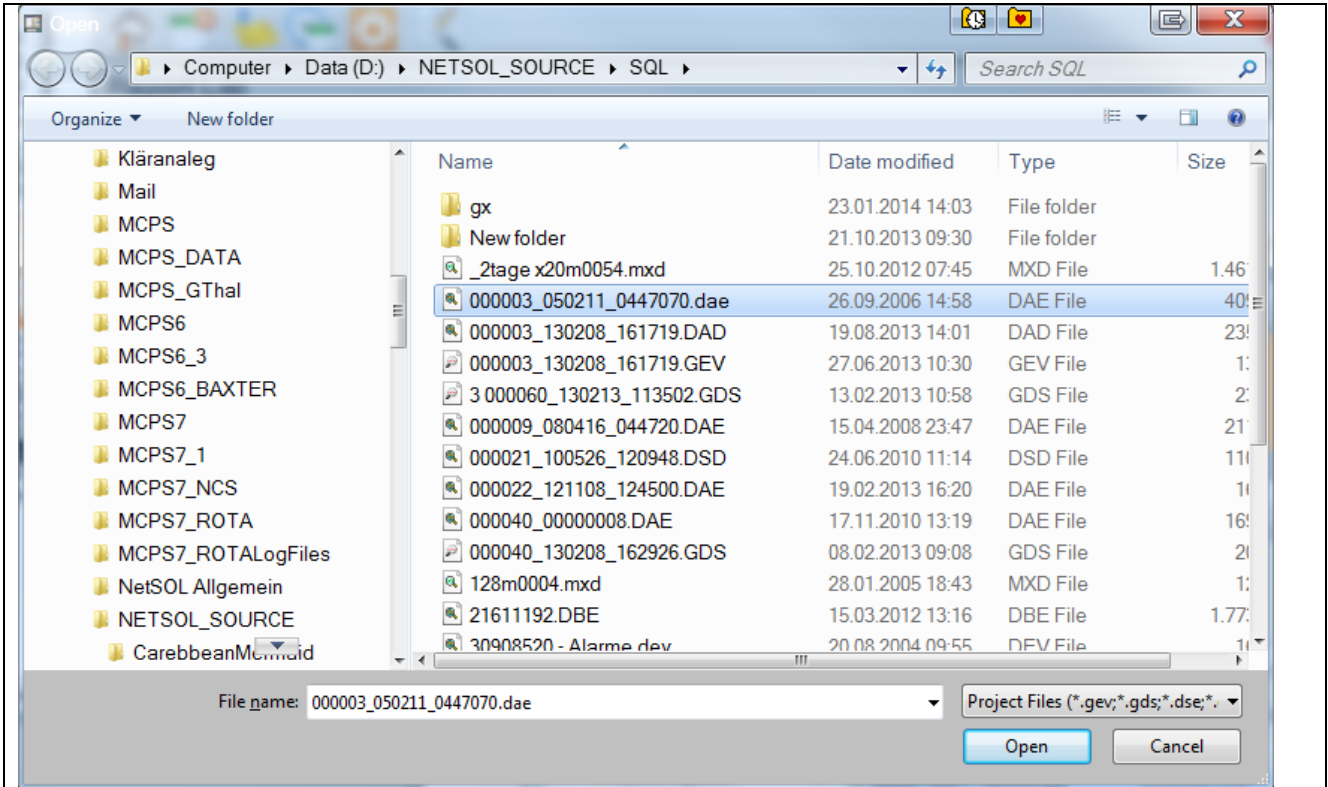
8. Attitude manual conversion

Over register sheet “manual convert” individual files with the selected format can be converted.



Use the Button “open” to select one or more files.
To test the “INSERT INTO” statement click the button TEST.

Create the report with the “insert into DB” button.



File open dialog

File open dialogue windows shows, with selects for a file, a small cutout of the general file information.

If an incorrect file is recognized, that appears information field in red. The file can be converted only manually.



NOTE:

Also manual converting requires an existing target folder!

9. Starting parameter

The program has parameters, which are read in when starting.

The following parameters (COMMAND) are available:

Parameter	Function
/noSplash	the Splash screen is not indicated. Note: That starts the program no longer immediately one indicates.
/Source:<path>\<filename>	By indication of the file (*.dds/*.dev) this is converted with the current attitudes. The program is terminated immediately after the conversion.
< path > \ < filename >	identically to the parameter /Source: The parameter /Source have a higher priority.



NOTE:

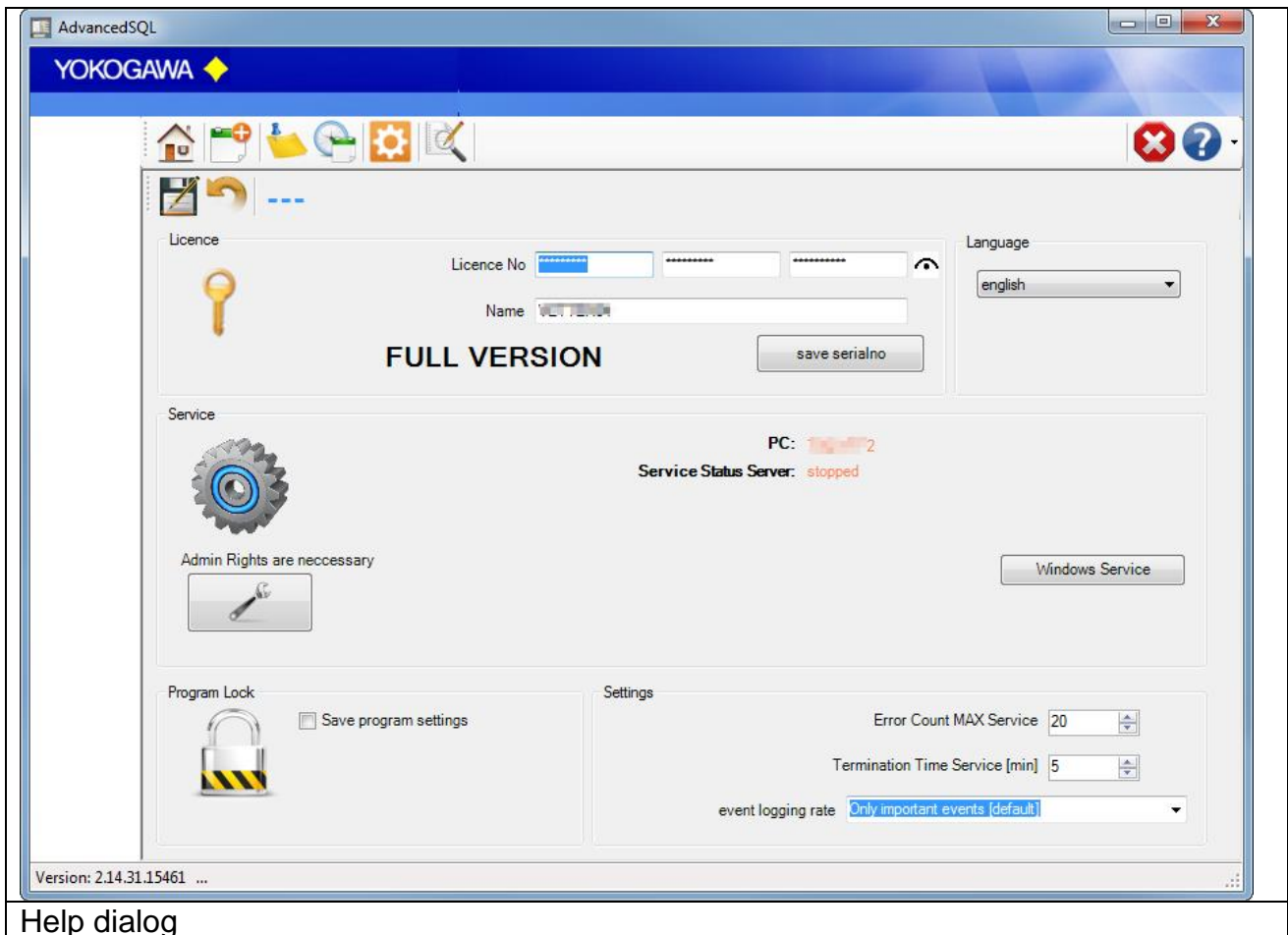
It is used adjusted name. The data are converted however after the attitudes in the program. The file extension can be possibly wrong.

Example:

AdvancedSQL.exe /noSplash

AdvancedSQL.exe /Source:c:\11212010.DDS

10. Information



Help dialog

From the information dialogue the version number and the address become evident when questions and suggestions.

10.1 License

10.1.1 Serial number

If the software in the demo version is installed, put the license number into these fields. With the Button save serial number the software is free licensed.

10.1.2 Name

Under name (company) the name of the enterprise is registered, if specific changes (e.g. a changed export format) at the software were made. A serial number with the registered company name can be acquired at the company Yokogawa.

10.2 Language change-over

By the Button “language” the language change-over. After selecting a language, these select are directly switched. Please start the program again, in order to receive a complete language change-over.

10.2.1 New language file provide

It is possible to translate the program AdvancedReport into different languages.

For the production of a further language, you proceed as follows:

1. Copy the file english.lng from the installation folder into a temporary folder.
2. Designate the file into the new language over, e.g. france.lng.
3. Open the file and a changing you the texts behind the =-Sign.
4. Store the file and copy them into the installation listing.
5. The new language can be selected after a restart by AdvancedReport.

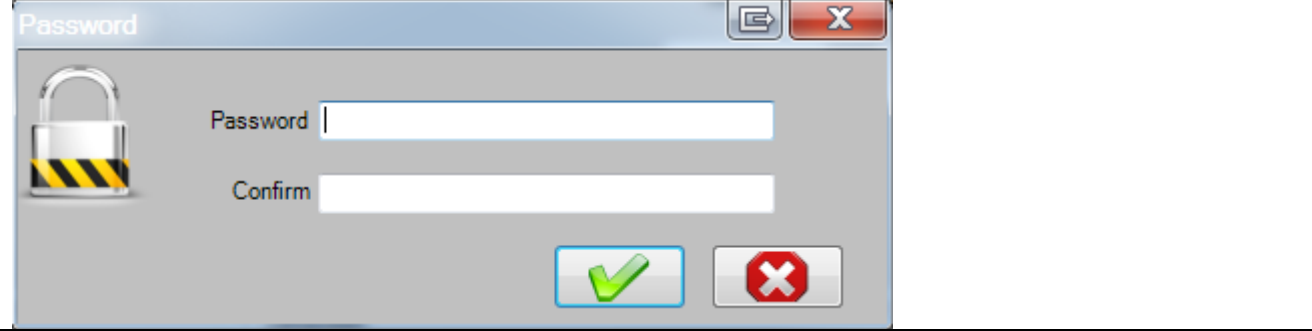
10.3 Program protection

Check this option to disable the following function.

1. Save program settings
2. End the program.

By checking the checkbox “protect program control” and entering a password the save will be protected by the password.

Also it is not possible to close the program without entering the password.



Enter the password

For saving the protection press the save button and re-enter the password.

The protection mode will be displayed at the status bar on the bottom of the program.

10.4 Logging

Every important message is stored in the windows event log. With the pull down menu it is possible to select the logging rate.

With default setting you will find only the important events in the Logfile. For more detail information within the error handling select the higher event log rate.

Error Count Max:

After 20 internal Errors, the windows service will be restart automatically. For this function it is necessary to start the service as a user with administrative rights.

Termination Waiting Time [Minutes]:

If the Software running as a service and a conversion of the report becomes an error, the conversion will be terminate after 10 minutes and also the Excel instance will be terminate.

Settings	
Error Count MAX Service	20
Termination Waiting Time Service [:]	10
event logging rate	Only important events [default]

Service Setting

11. Run Program as NT- Service

It is possible to start the program as a service. With this it is not necessary to login on the computer. It starts automatically with Windows.



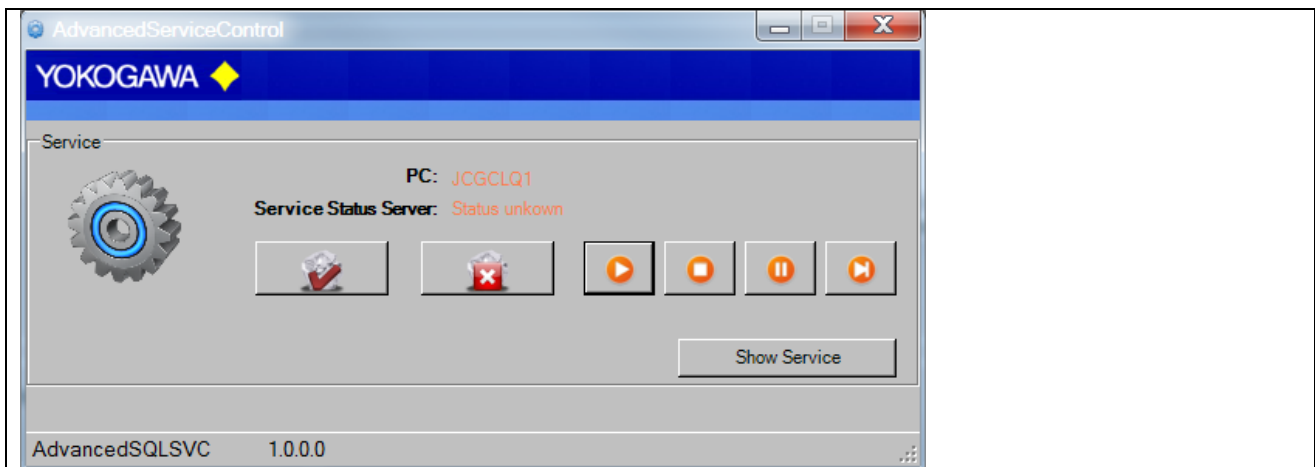
NOTE:

Also the FTP Server has to run as a Service!

11.1 Installation

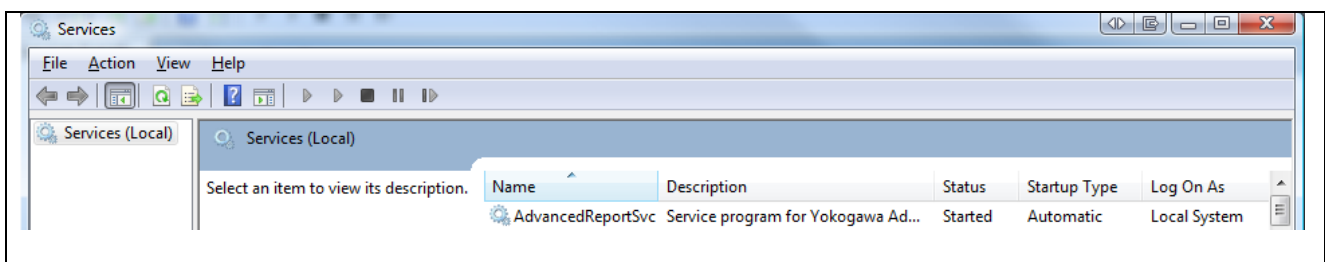
Change to the Settings register. The Button „Install“ add the service „AdvancedSQLSvc“ into the control panel. The Button „Start“ activate the Service. The service start as „System“ User in Automatic Mode.

By changing the settings, it will be activate with a new folder scan.

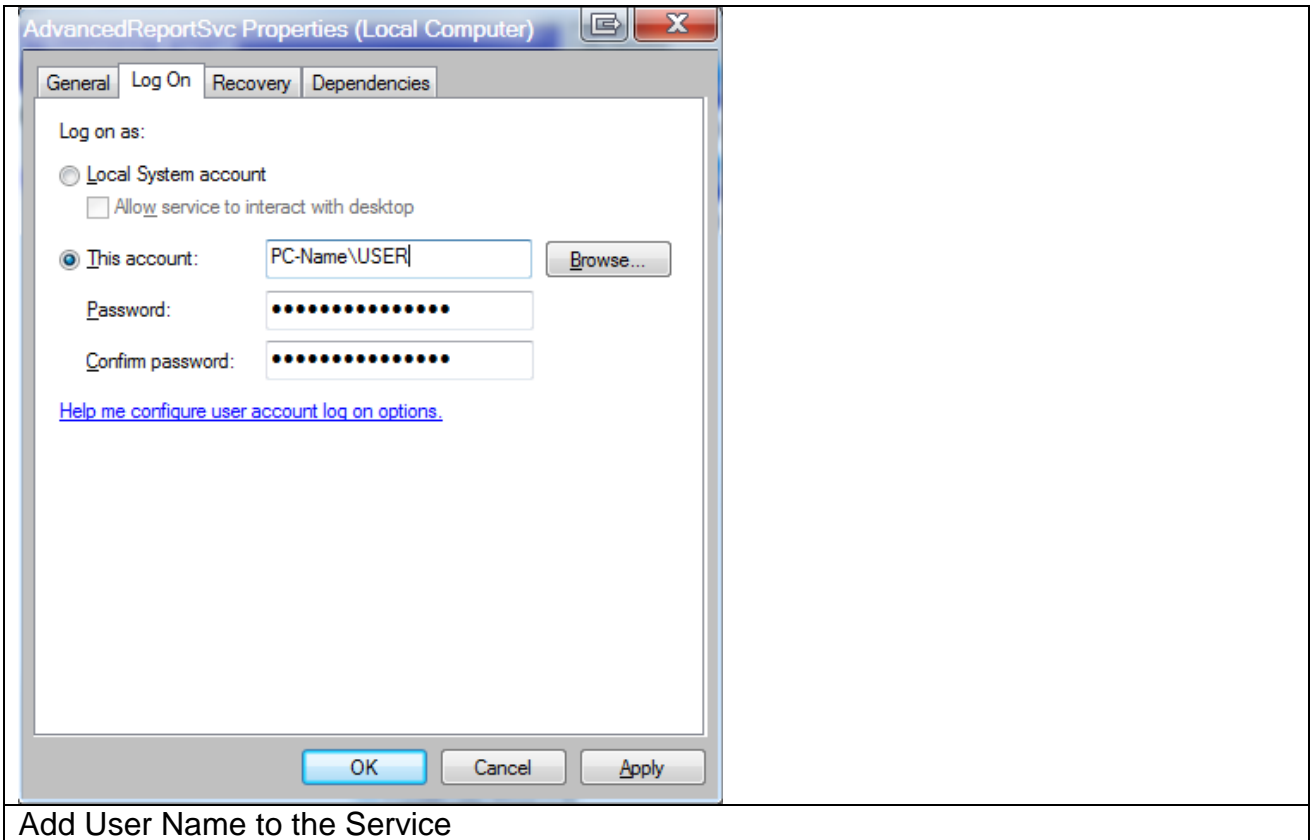


Install Service in AdvancedSQL

The messages are sending to the Windows event logger (Control Panel → Administrative Tools → Events).



Windows Services



11.1 Deinstallation

Change to the Settings register. The Button „Stop“ stopped the service. After stopping the service it is possible to uninstall the service by using the button „Un-Install“.

12. Error handling

12.1 Solve Problem by yourself

If an error is recognized in the conversion or in general running of the program, this is indicated by an “Alert window” and registered in the error log.



Note:

1. Please read this chapter to solve the problem.
2. Use the Error Handling routine before calling your Services Team.

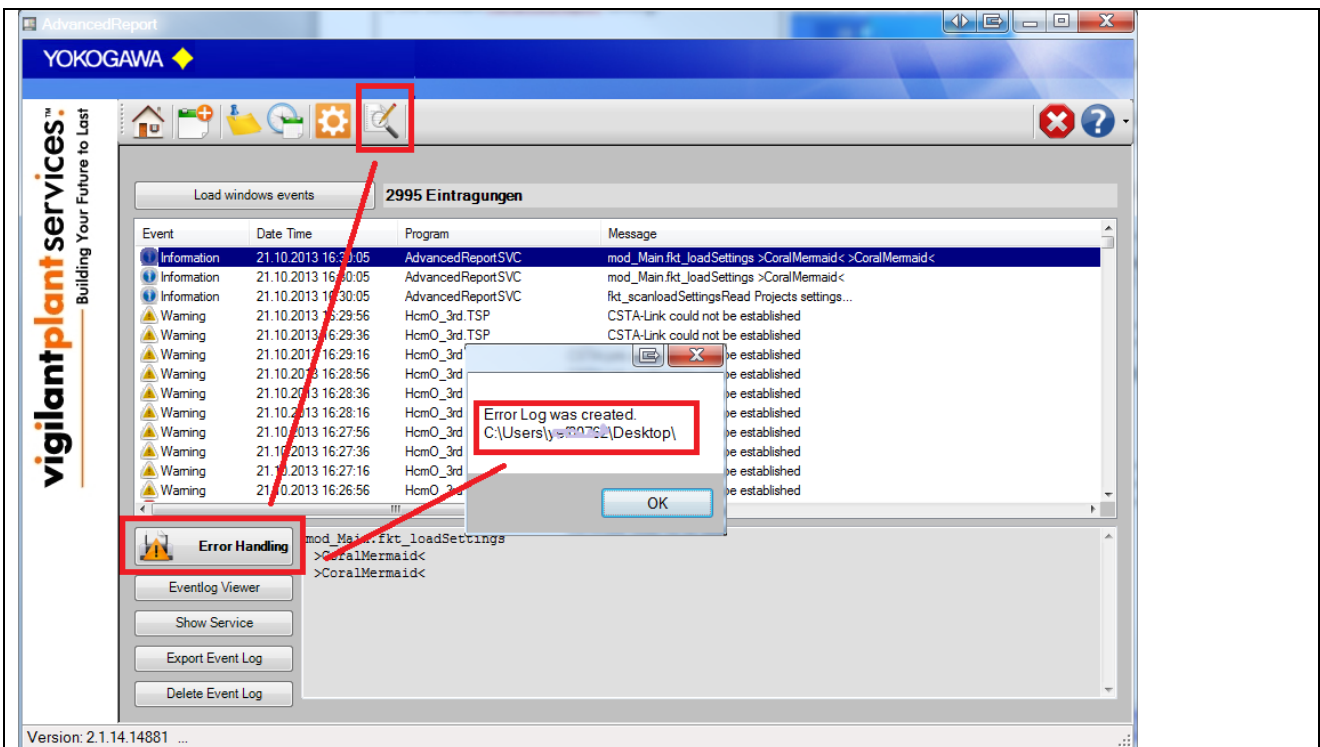
12.2 Software AdvancedSQL

During the conversion or in the generally running program if an error is recognized, this is indicated by a reference display window and registered in the file error.log.

Please send the file with exact error report and if necessary the file which can be converted to the well-known email address.

If the programs running as a Service, the messages are also send to the Windows event logger (Control Panel → Administrative Tools → Events)

- Start AdvancedReportV2
- Select Button >Events< See next picture.



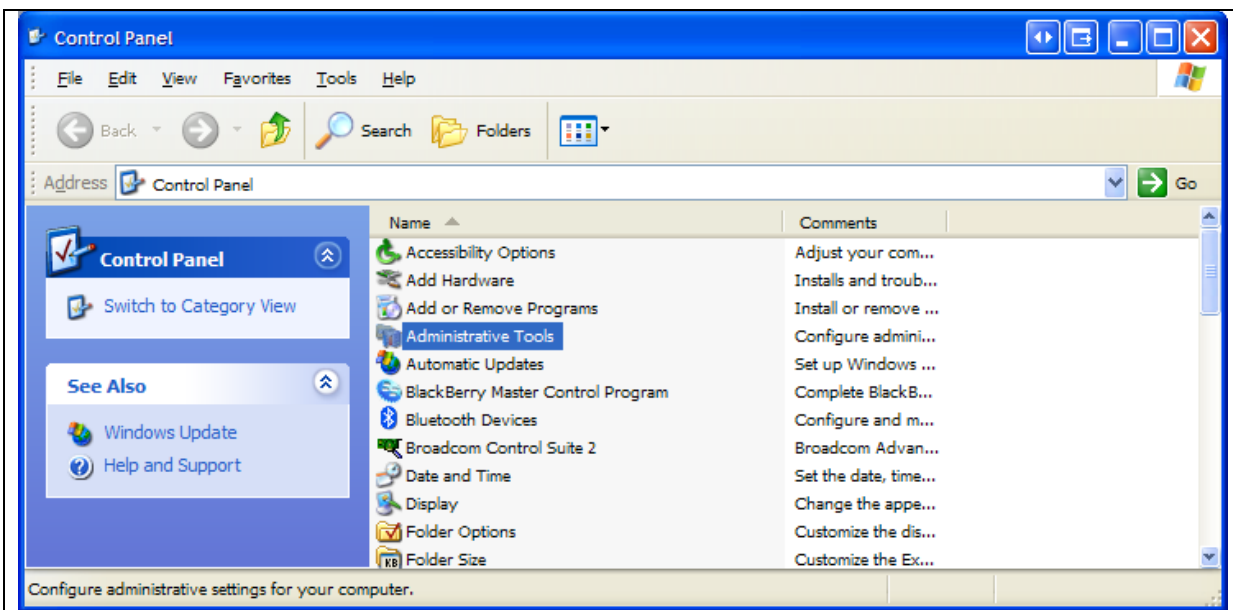
Start Error Handling routine

13. EXAMPLE: Server Settings for SQL Database

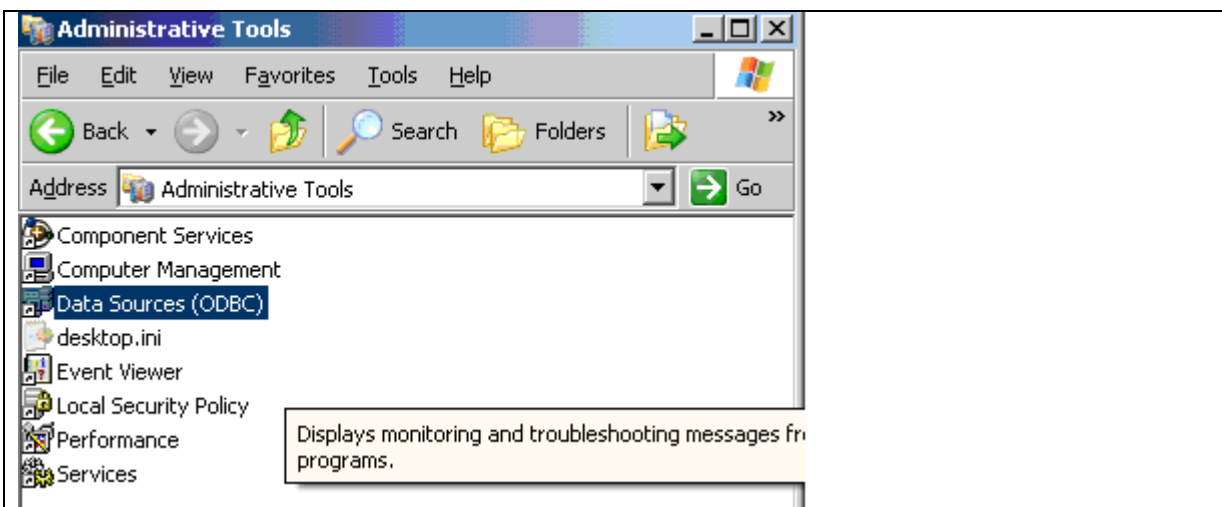
To connect AdvancedSQL with a SQL Database it is necessary to create a DSN Connection.

This is a part of MS Windows.

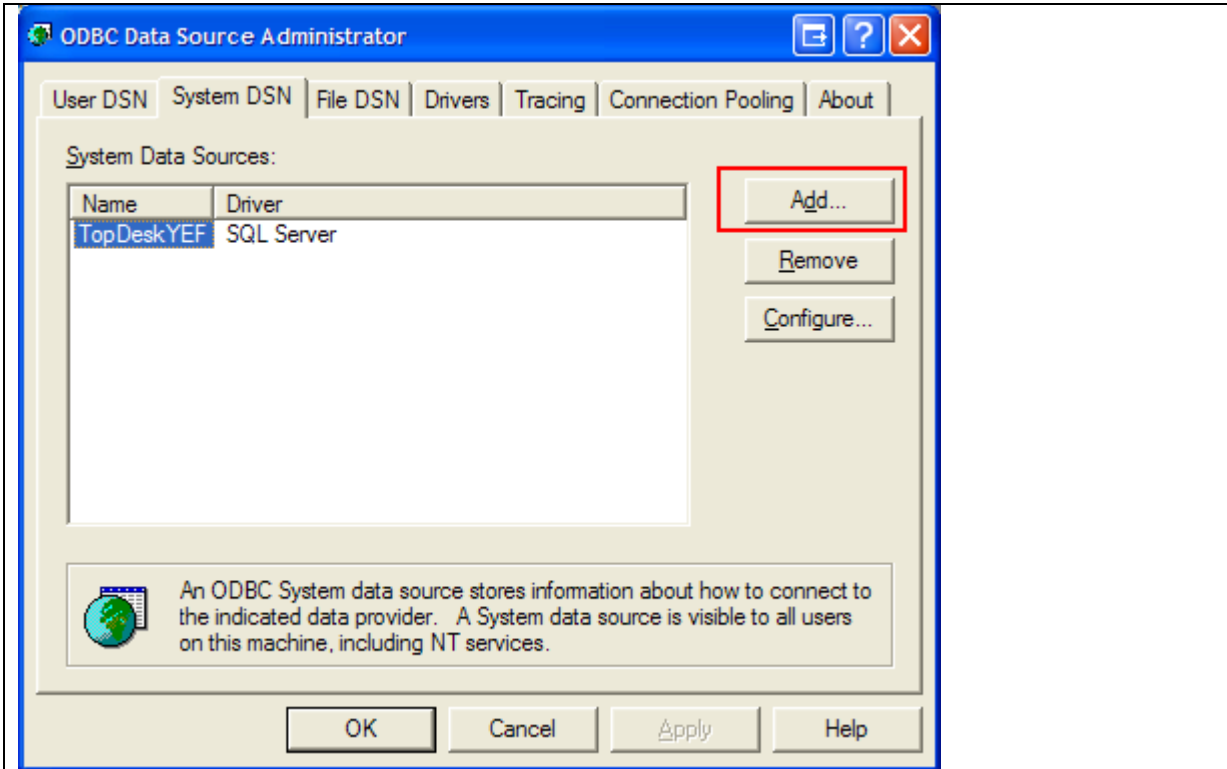
13.1 Create DSN File



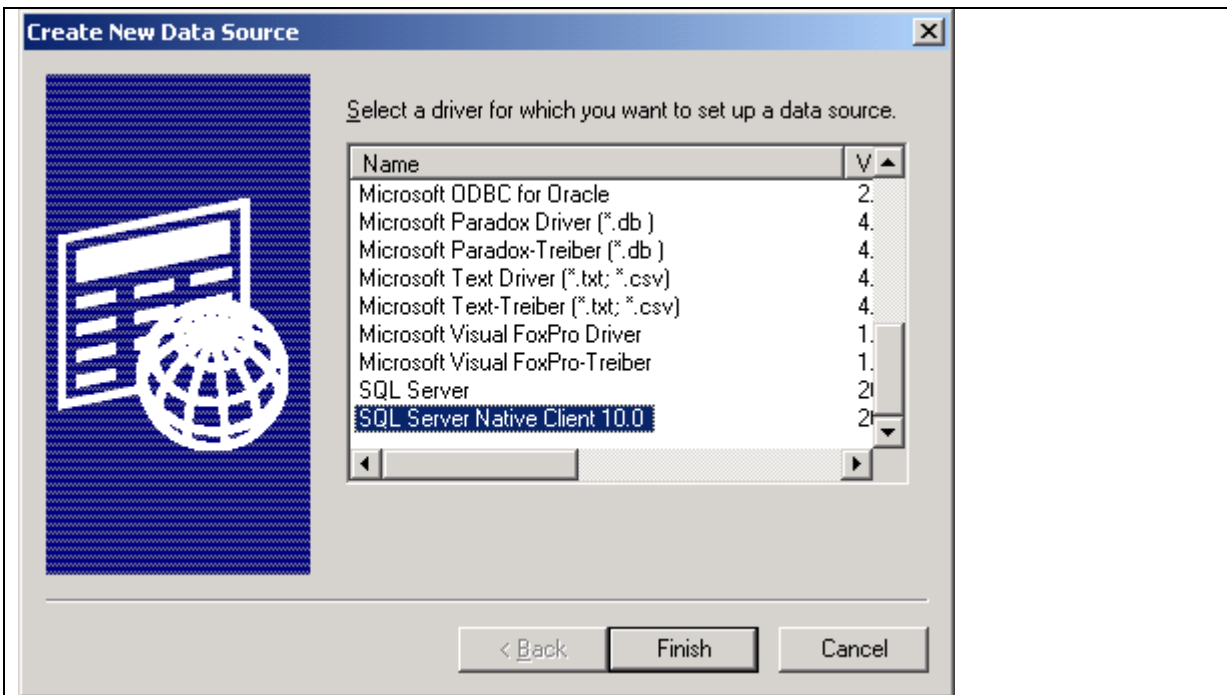
Control Panel → Administrative Tools



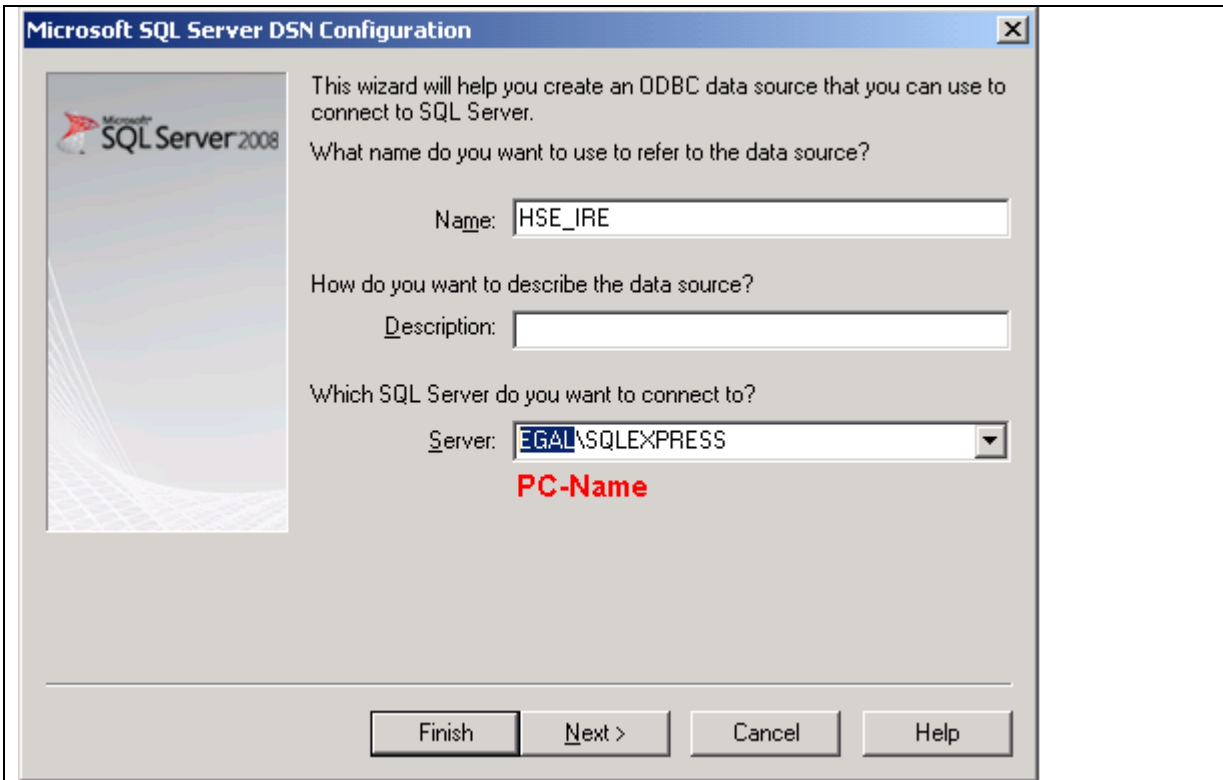
Data Source (ODBC)



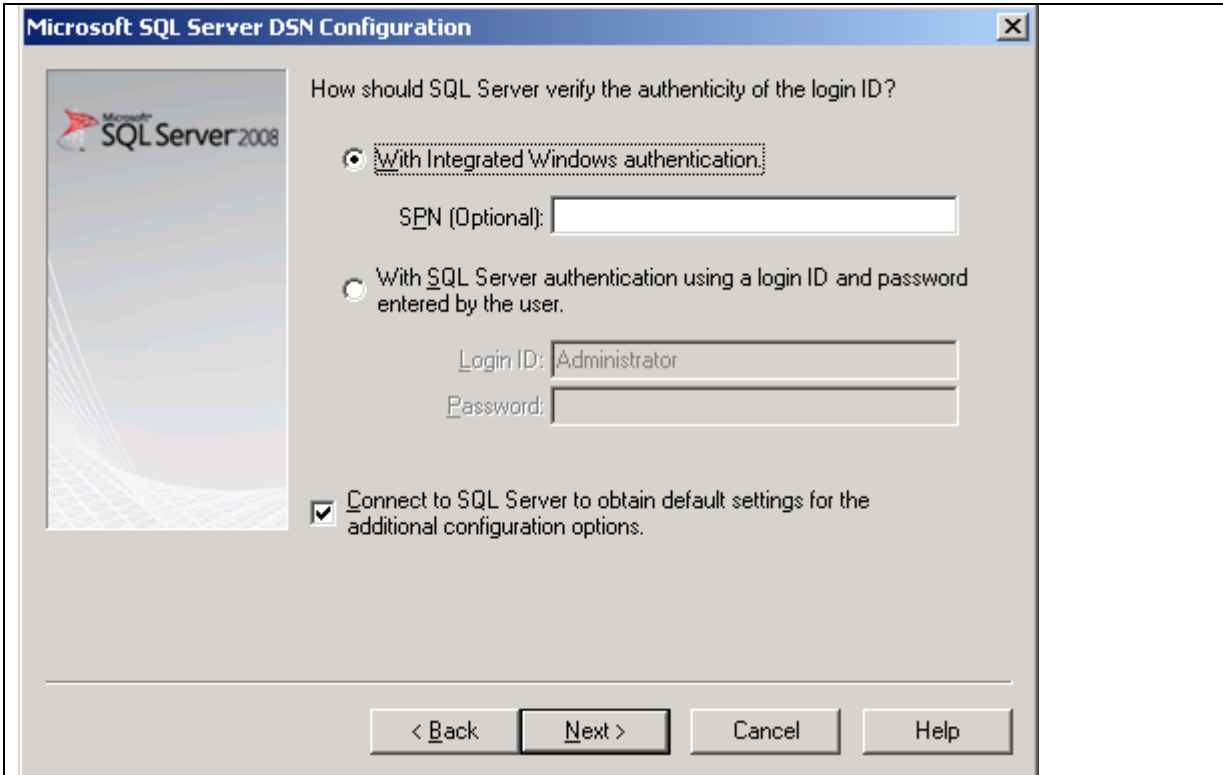
Add new Source



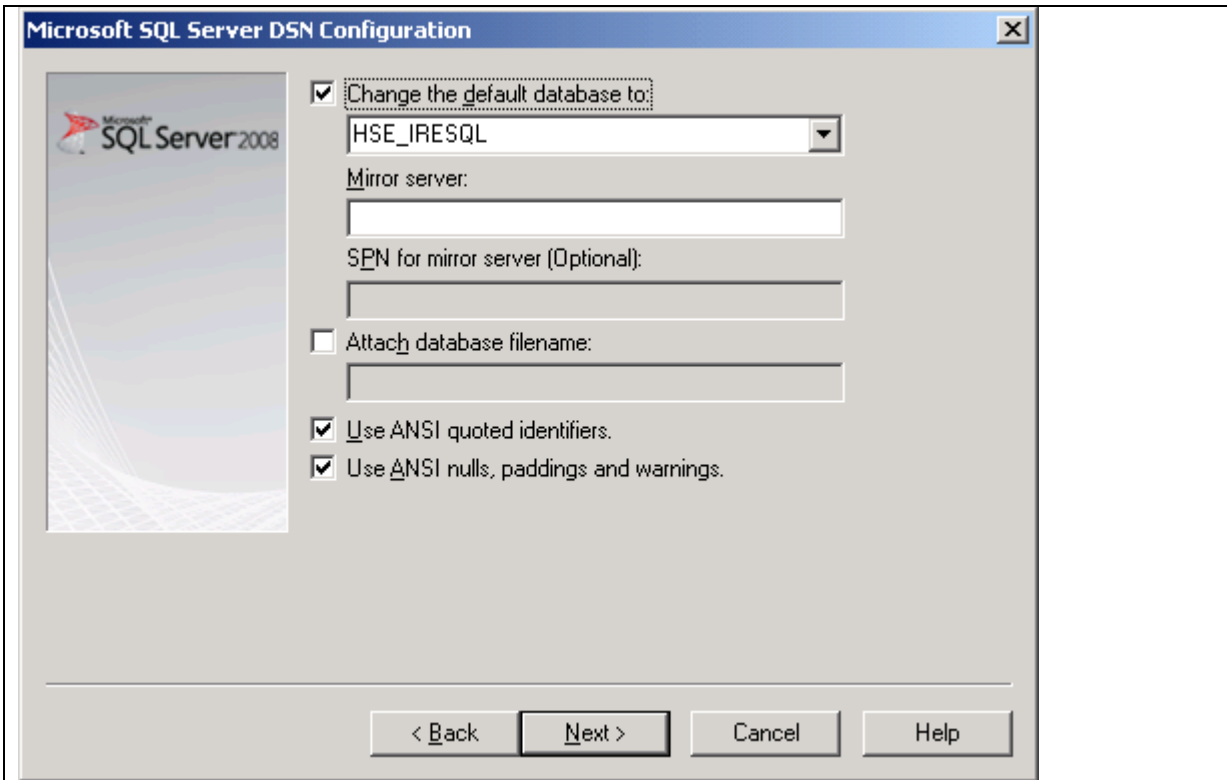
Create New Data Source



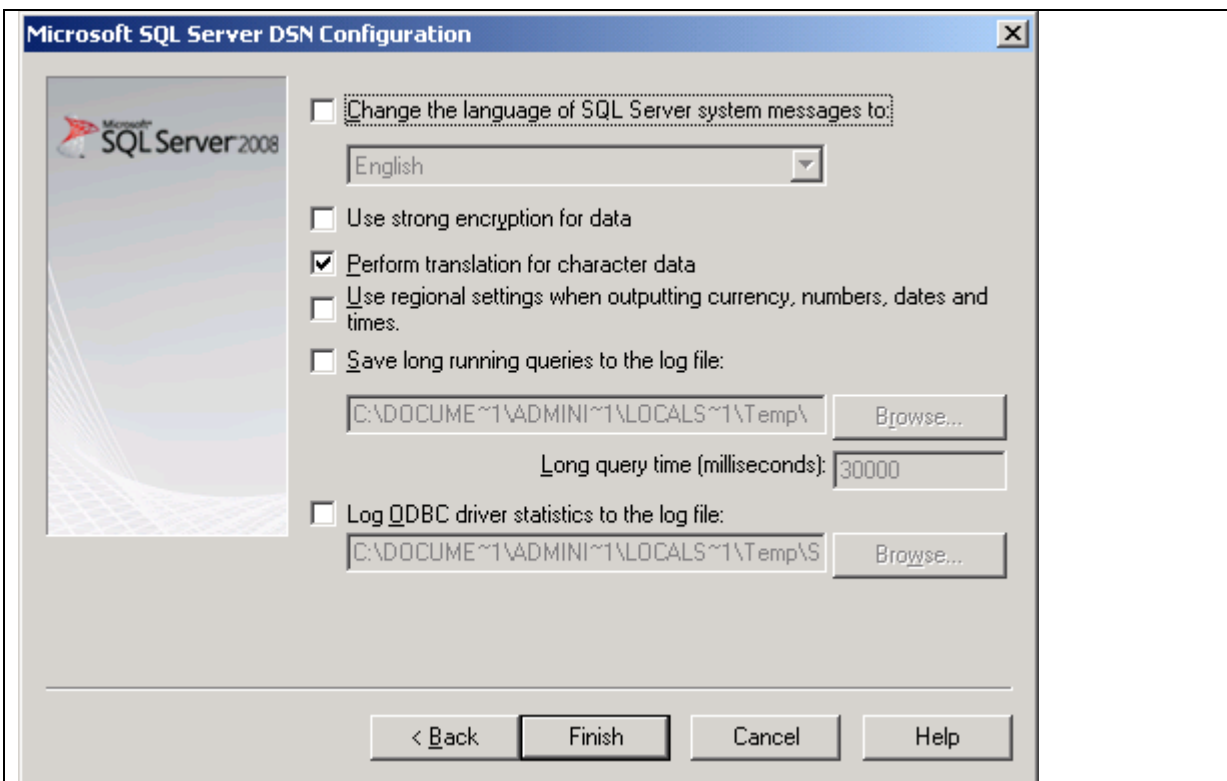
Add Name of Source
Select Database



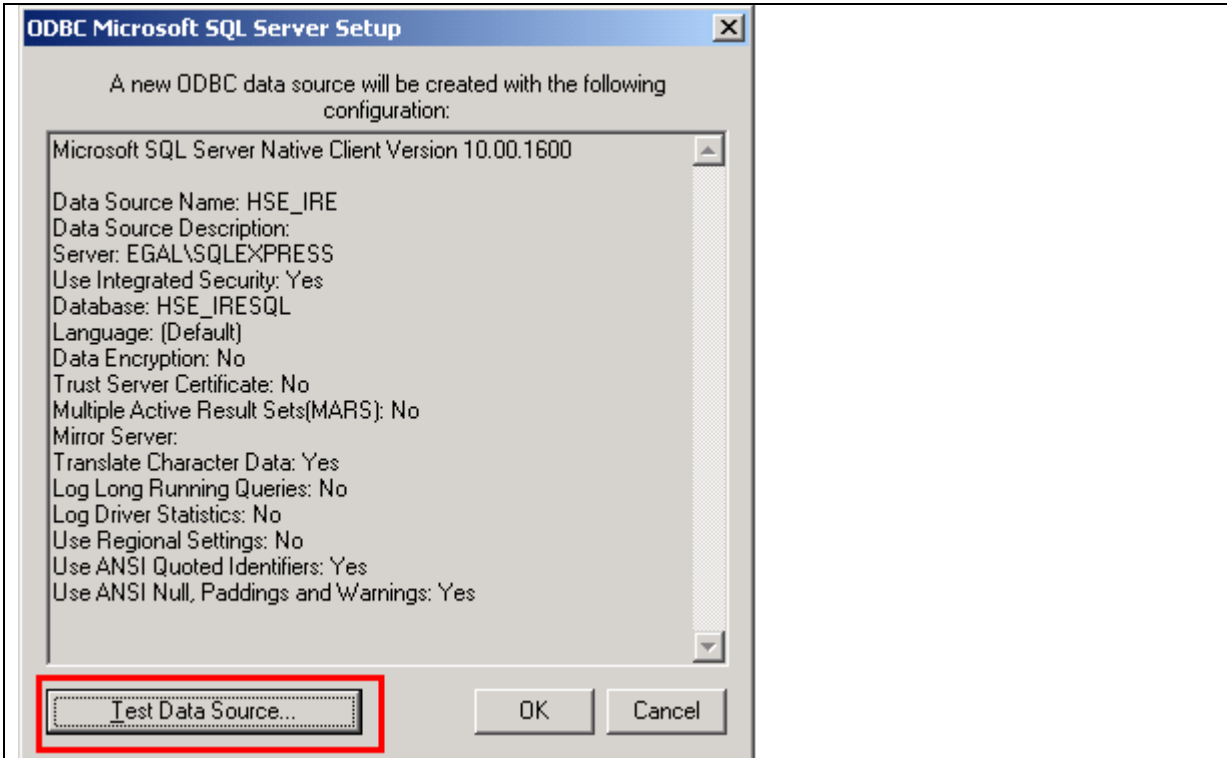
Change nothing



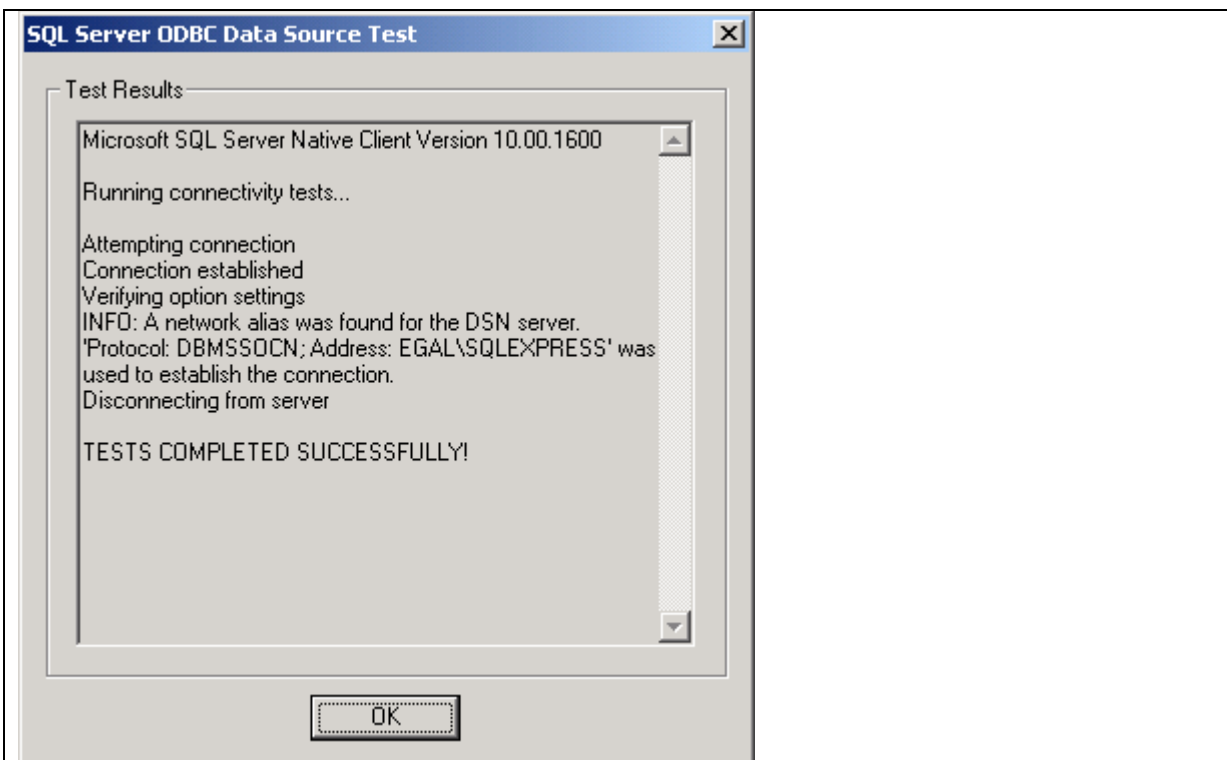
Add Original SQL Database name



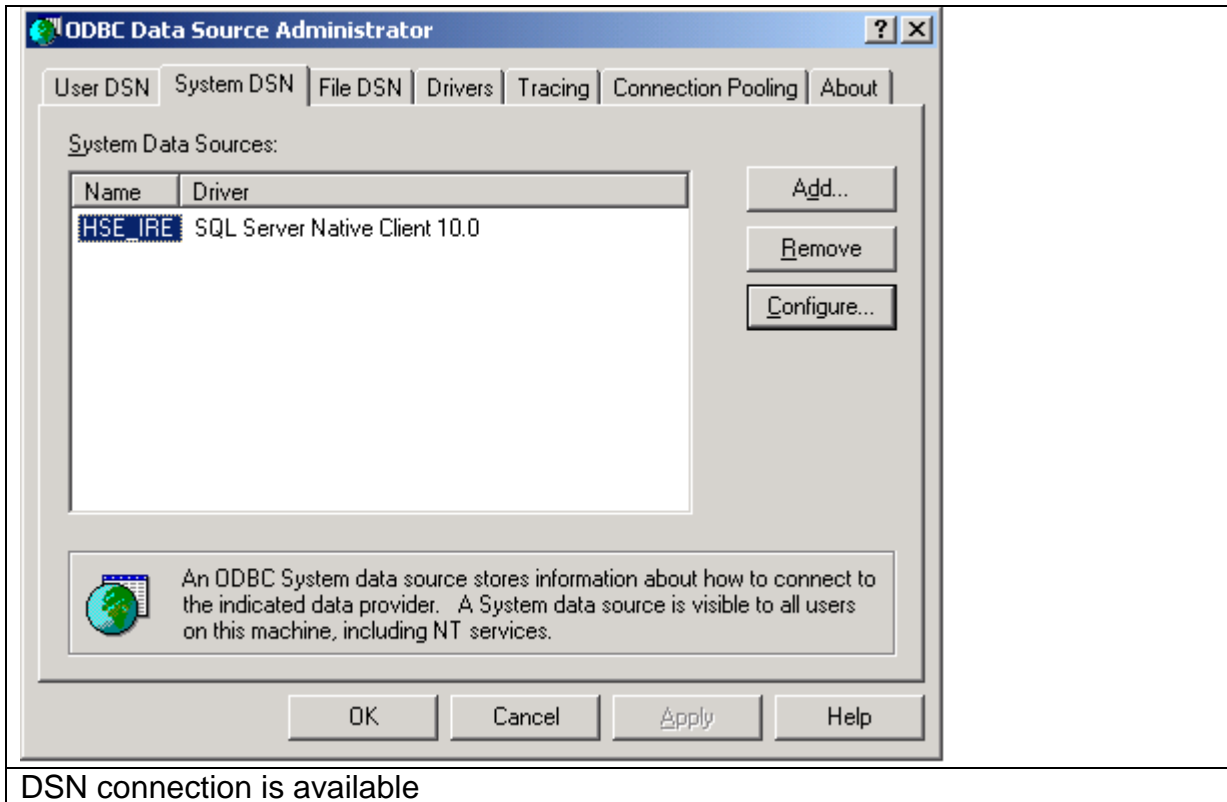
Change nothing



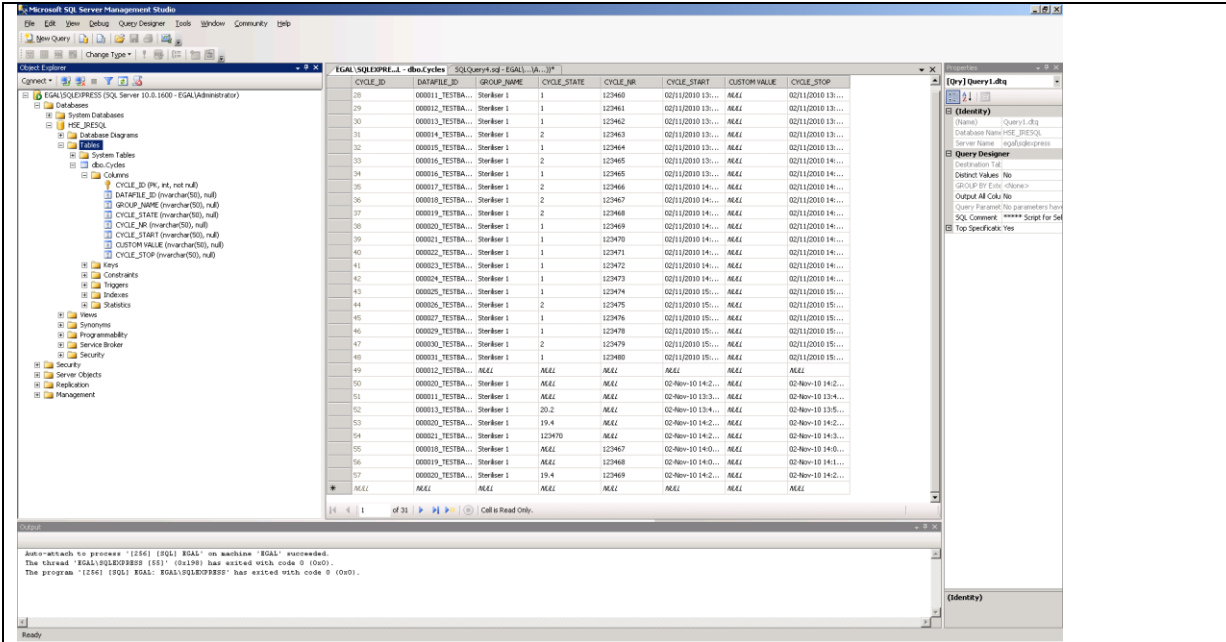
Test connection to Database



Test successfully if everything is OK



13.2 MS SQL Database Settings



SQL Database Manager

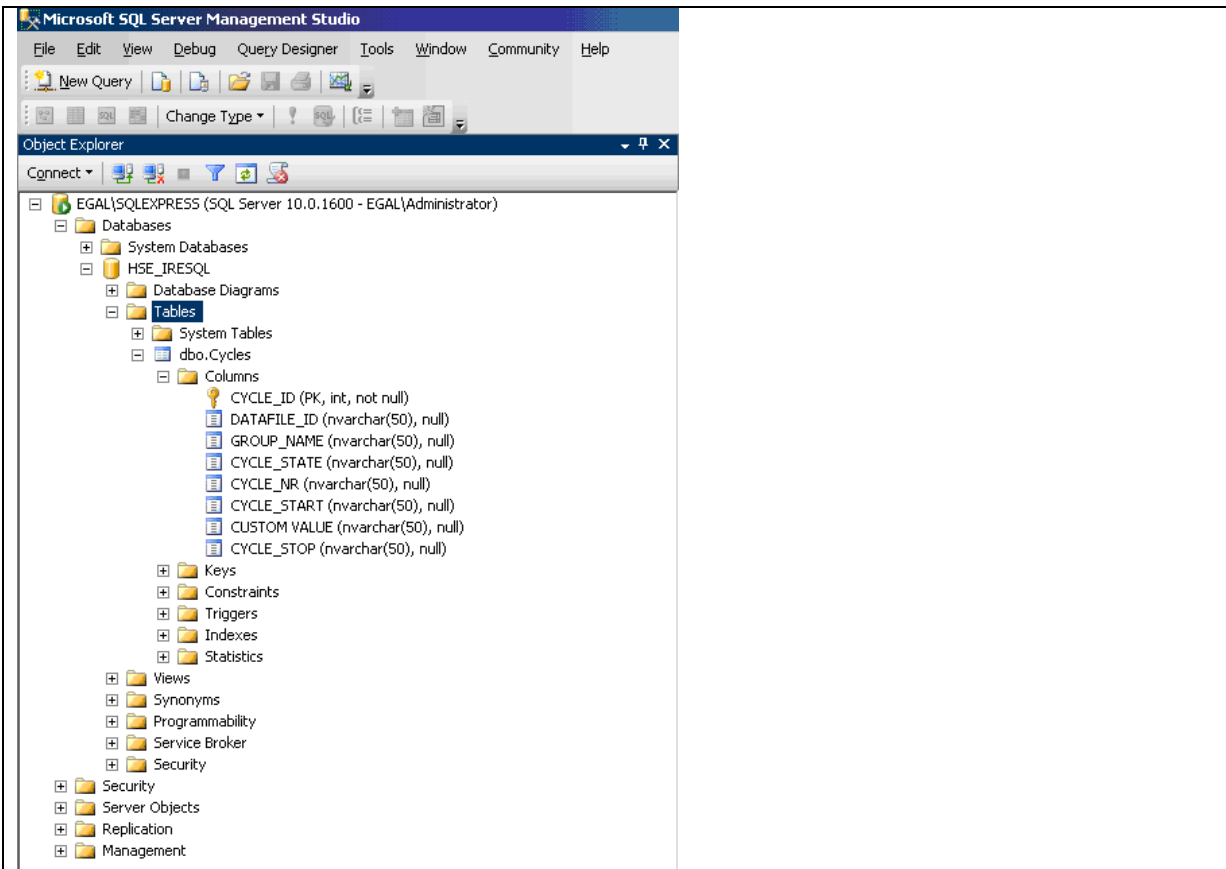


Table Settings