

User Manual - ACA_db Program

Description

Property Set values can automatically be updated back and forth to one or many external databases. If you make changes to the values within a Property Set they can be synchronized back to the external database. Any Property in a Property Set Definition can be exported and all editable Properties can be imported.

Setup files

- JTB.AcaDbXMgd_18.dll (2010-2012) or JTB.AcaDbXMgd_19.dll (2013)
- ACA_db_samples.mdb
- ACA_db_samples_2010.dwg or ACA_db_samples_2013.dwg
- ACA_db_samples.UDL
- ACA_db_license.txt (sent by email from JTB World upon request)

Setup procedure

1. Place the DLL file in a single local folder. For example C:\Program Files\JTB World\ACA_db .
2. Place also the license file ACA_db_license.txt in the same folder.
3. ACA_db_samples.UDL should be placed in the Data Links folder. The location is found easiest by using Options>Files>Data Sources Location within AutoCAD.

The DLL needs to be loaded by your AutoCAD application and that can be done in different ways. Use one of the following options.

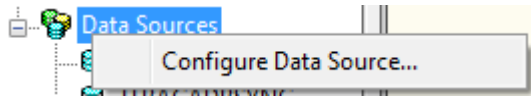
- Use the command NETLOAD and select the DLL. This loads the command in the current session only.
- Create a menu command, toolbar button, ribbon button or palette tool using CUI and force load it before running the command.
Macro or Command string:
`^c^c(command "netload" "C:/Program Files/JTB World/ACA_db/JTB.AcaDbXMgd_18.dll")
ACADBOUT;`
- Use one of the AutoLoad...reg files that can be provided. Double click on the file and accept to merge to the registry. This will make sure that the commands are available whenever you run AutoCAD.
- Add the row below to your acad.lsp file so it loads automatically when AutoCAD starts.
(command "netload" "C:/Program Files/JTB World/DimNotes/JTB.AcaDbXMgd_18.dll")

Usage

Database connection

dbConnect command (or DBC) can be used to create and configure the data source.

Right click on Data Sources and select Configure Data Source...

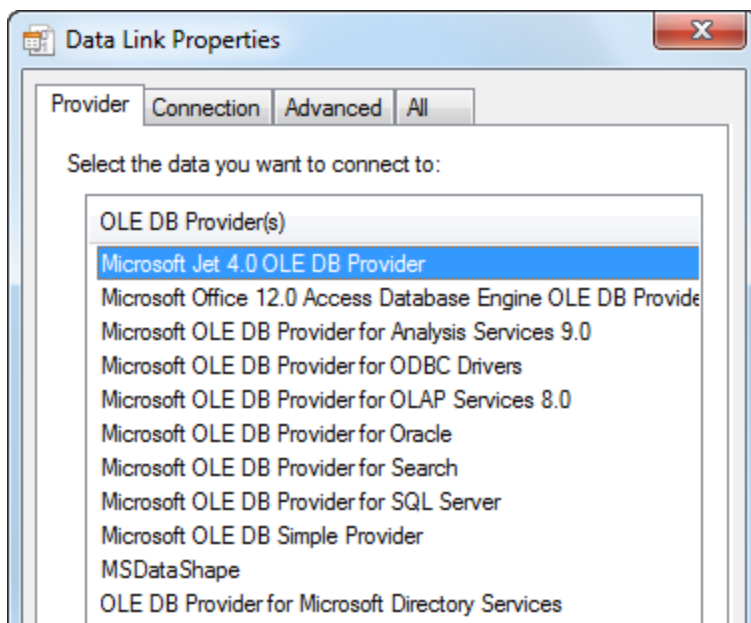


Give it a name.

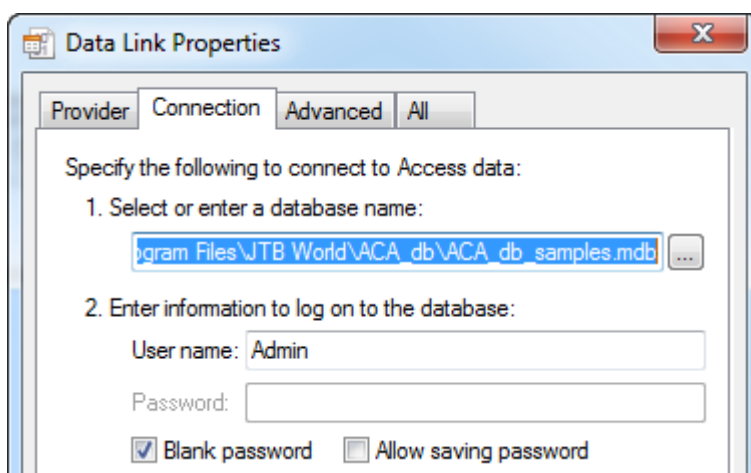
Specify the database provider.

For 32-bit AutoCAD use Microsoft Jet 4.0 OLE DB Provider.

For 64-bit AutoCAD use Microsoft Office 12.0 Access Database Engine OLE DB Provider.



Make the Connection by selecting the database to use.



You might also be able to double click on the UDL file directly in Windows Explorer to edit the properties.

Database structure

The main database must contain the tables JTBW_Files, JTBW_PropertySets and JTBW_Properties. The other tables that contain the actual data can be located in the same or in one or more other databased.

Program requires following mandatory tables in the database.

1. JTBW_Files (Column DWGNAME is mandatory)

This table can be manually populated otherwise the program will populate it automatically.

2. JTBW_PropertySets (Columns Property Set Name and Description are mandatory)

Manually enter the name of the Property Set Definitions in AutoCAD Architecture to be used. This value is case sensitive.

A description is optional.

3. JTBW_Properties (Columns ID, Property Name, Property Set Name, Description, DBConnection and IsDimensionInNumericFormat are mandatory)

Property Name must match an existing name in the specified Property Set Definition in AutoCAD Architecture. This value is case sensitive.

Property Set Name must match the name of the Property Set Definition in AutoCAD Architecture and also exists in the JTBW_PropertySets table. This value is case sensitive.

Description is optional.

DBConnection specify the name of the data source, table and column (field) separated with "!". For example ACA_db_samples!WallObj!Length

IsDimensionInNumericFormat If yes, then dimensions are in numeric format. If no, then dimensions are in text format (feet & inches).

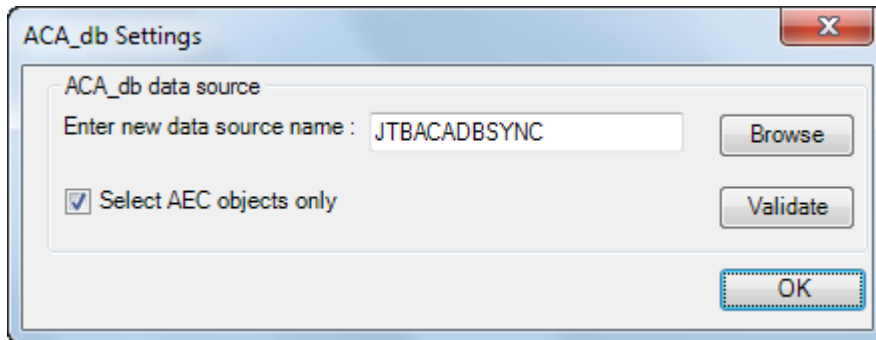
4. Any other tables stores property values (Columns DBID {AutoNumber data type and Long Integer size}, DWGNAME {Memo data type and long text string size} and HANDLE {Text data type with 255 field size} are mandatory). These tables can also be in a separate database if there is a data source that identifies it.

Property Set Definitions

Use the command `_AecStyleManager` or Format menu to start the Style Manager. Expand Documentation Objects on the left side and then expand Property Set Definitions. Either an existing PSD can be used or a new can be created. What makes a Definition to have the ability to be retrieving information from a database is that it is added to the database tables JTBW_PropertySets and JTBW_Properties.

ACA_db commands

Run ACADBSETTINGS and enter the data source name to be used. If you uncheck the “Select AEC objects only” it will affect the performance as more objects might need to be handled. Press validate button to make sure it works and then on OK. For the sample database use ACA_db_samples as data source name as it is also used in the database in table JTBW_Properties.



Run the command ACADBMAKE and this is what it can look like on the command line.

Command: ACADBMAKE

Data Source Location = C:\Users\JTB\AppData\Roaming\Autodesk\ACA 2010\enu\data
links

Datasource name = JTBCADBSYNC :

Database = C:\Program Files\JTB World\ACA_db\ACA_db_samples.mdb :

This file is now compatible with database.

ACADBMAKE (Use this command to make new/existing drawing possible to sync. This command saves current file name to “JTBW_Files” table in the database.) This is only needed to run once on a drawing. After this it is enough to run ACADBOUT or ACADBIN.

ACADBSETTINGS (UI version of the settings command)

-ACADBSETTINGS (command line version of ACADBSETTINGS)

ACADBOUT (Sync out data from drawing to database)

ACADBIN (Sync in data from database to drawing)

Some further details:

- The program is compatible with AutoCAD Architecture and MEP.
- Property set data type and database data type must be compatible.
- A PSD must be linked to a single table.
- An object must not have 2 or more records linked from same db link.
- An object must not have 2 or more records linked from different db links referencing same table.
- All automatic properties are considered as read-only. Such properties can sync to database but cannot sync from database.
- JTB.AcaDbXMgd.dll should be placed on the local drive unless you have .NET Framework 3.5 SP1 or newer installed, in that case the DLL file can be placed on a network drive.