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Purpose of the document

This document is intended to help with Adash *Online Data Manager* (DM in next text) installation process. It points out the critical issues that might appear during untypical installation.

Prerequisites

Hardware

DM requires at least 256MB of RAM. This is the absolute minimum. Better results can be reached with 512MB and 1GB becomes optimal. Overall HW configuration must ensure non-problematic running of MS SQL server (or the free MSDE distribution).

Software

Although the DM is able to run on Windows 98 operating system, it is **strongly** recommended to install it at least on Windows 2000 or Windows XP PCs. Workstation/Home version can be used if your SQL server or MSDE installation does not require higher (Server/Professional) version of operating system. So, prior to choosing operating system, please decide which version of SQL server you will install.

Where to get DM installation package

Adash website always contains latest available version of DM in two language modifications: English and Czech. Please, visit the link http://www.adash.com/download_prog_en.php?jazyk=en, the OnlineDataManager section to download the latest installation package.

Installation Process

This section describes how to install the software parts of online data collection system A3600.

Installing Moxa Driver

The DM communicates with A3600 system through serial communication port. The COM port of your PC can be attached directly to A3600 system's serial port (the COM module of A3600). Or, the COM port can be mapped to the IP address, which was assigned to the COM module of A3600 by Adash. The latter case (the COM port mapping) requires appropriate software. It can be downloaded from Moxa Technologies (<http://www.moxa.com>) website. The ADASH ETHERNET module requires support for Moxa NE-4110, other (special modules) require support for Moxa DE-311.

Installing NPort Management Suite for Moxa DE-311

1. Download the appropriate Moxa installation package to your local drive.
2. Run the installation and follow the instructions in the dialog boxes. It will install Moxa NPort Management Suite software.
3. Run the NPort Management Suite Configurator.
4. In the *Locate Server* menu, choose *Broadcast Search*. It will find all the A3600 with Moxa DE-311 on the network.
5. Run the NPort Management Suite COM Port Mapping – Real COM Installer.
6. In the *Server* menu, choose *Add Server Wizard*.

7. In the wizard 2nd step, select the option *Automatically search the LAN*. The *Add NPort Wizard* dialog will list all available Moxa DE-311 units in the 3rd step.
8. In the 4th step, select the initial COM port number for mapping found units and finish all the wizard steps.
9. Exit the Configurator exit Real COM Installer.

Now you have your COM ports mapped to appropriate A3600 system(s) on the network.

Installing Network Enabler Administrator for Moxa NE-4110

1. Download the appropriate Moxa installation package to your local drive.
2. Run the installation and follow the instructions in the dialog boxes. It will install Moxa Network Enabler-Administrator software.
3. Run newly added Network Enabler-Administrator software.
4. In the *Network Enabler Administrator* tree choose the *Configuration* item.
5. In the *Configuration* menu, choose *Broadcast Search*. It will find all the A3600 with Moxa NE-4110 on the network.
6. In the *Network Enabler Administrator* tree choose the *COM Mapping* item.
7. In the *COM Mapping* menu, choose *Add Target*.
8. In the *Add Network Enabler* dialog, check all available Moxa modules you wish to bind to the local COM port.
9. In the *COM Mapping* menu, choose *Apply Change*.
10. Exit the Network Enabler-Administrator software.

Now you have your COM ports mapped to appropriate A3600 system(s) on the network.

What If

- Q: What if I do not install Moxa related software?
A: You will not be able to manage your A3600 system over network.

Installing MS SQL Server or MSDE

The DM stores all captured data into MS SQL database. You need install either full installation of MS SQL server, or freely distributable engine MSDE. In both cases, install the server that is remotely accessible in mixed authentication mode.

To install MS SQL server: Follow the instructions provided by Microsoft.

To Install MSDE:

1. Download your MSDE installation package from Microsoft web site or get the *MSDE2000A.exe* from Adash installation CD.
2. Run *MSDE2000A.exe*. It will unpack installation files into chosen directory (default is C:\MSDERelA).
3. Open the unpacked setup.ini file in text editor (e.g. *notepad.exe*).
4. Add following lines under the [Options] section of setup.ini file:
SAPWD="adash"
DISABLENETWORKPROTOCOLS=0
SECURITYMODE=SQL
5. Run *setup.exe /settings setup.ini*. It will install MSDE on your PC.

What If

- Q: What if I use empty sa password (SAPWD= " ")?
A: Most probably, the instance of MSDE will be unreachable through SQL authentication.
- Q: What if I still want to use empty sa password?
A: Install MSDE with non-empty password and change it by SQL Enterprise Manager or another similar tool.
- Q: What if I perform installation without DISABLENETWORKPROTOCOLS=0 and SECURITYMODE=SQL options?
A: You can still access the MSDE instance through windows authentication but you will need to add every new user of DDS database by SQL Enterprise Manager or another similar tool. In most cases it requires cooperation with IT/administration department (to get appropriate privileges).

Installing 3600 Setup

1. Download the latest *3600 Setup* installation package (e.g. *A3600Setup345_en.exe*) to your local drive.
2. Run the installation and follow the instructions in the dialog boxes.

Installing Online Data manager

1. Download the latest DM installation package (e.g. *DataManager_Setup_x_x_xx_en.exe*) to your local drive.
2. Run the installation and follow the instructions in the dialog boxes.

What If

- Q: What if I install DM on the computer where is **no DDS** installed?
A: DM will **move all measured data** from target project database **into** external MS Access **MDB** file after reaching the size limit of 250MB. The DM requires DDS2000.INI file on path specified in project file otherwise it uses default export settings, which means moving all data somewhere else after reaching 250MB.

Running It First Time

Setting the A3600 System

1. Run the *3600 Setup* application.
2. In the *Configuration* menu, choose *Read from A3600 system*.
3. In the *Read configuration* dialog, select COM ports of all A3600 systems you wish to manage and click OK. Status dialog appears that indicates current actions.
4. Click OK button.
5. Select items in the left tree (which relate to A3600 components) and choose their settings. Please, have a look at *3600 Setup User's Guide* to find detailed description about setting your A3600 system.
6. In the *Configuration* menu, choose *Write to A3600 system*.
7. In the *File* menu, choose *Make DDS import file*.
8. In the *Save as* dialog, choose the destination folder and file name of you 36C project file and click *Save*.

Do Not Forget

- When managing A3600 components (step 5 above), do not forget to allow *Data distribution* to *NET* (the *MAIN* section of the tree – check the checkboxes *static* and/or *dynamic* in the *NET* box).
- Do not forget to enable data measuring at least at one channel; otherwise DM will get no data from A3600 system.
- Do not forget to attach sensor to the enabled channel(s); otherwise you will get no data or you will get nonsense data (in the case you have ICP check disabled on that channel).

What If

- Q: What if *3600 Setup* cannot reach the A3600 system?
A: First try to ping the IP address of that A3600 system. If it does not respond, check the *Link* LED on the ADASH ETHERNET module. Check if the Ethernet line between A3600 and your PC is up and working.
- Q: What if I can ping A3600 system but *3600 Setup* still cannot reach it?
A: Check the Moxa software. Verify if the unreachable COM port is bound to the required IP address. Verify the COM port settings (default speed 57600, etc).

Binding 36C Project File to DDS Database

1. Run DDS
2. Open the database where the data should be stored and prepare the target tree (see the *DDS User's Guide* for details how to open database and create the tree with sub-items).
IMPORTANT NOTE: The database **must not be an MS Access** database.
3. In the *Tools* menu, choose *Configuration A3600/Database interconnection to A3600*. The *A3600 connection window* opens.
4. In the database combo box, select the database where the data will be stored.
IMPORTANT NOTE: The same database where you prepared the tree mentioned above.
5. Drag & drop the signals you wish to collect into the appropriate place in DDS tree.
6. Click the *Save* button in *A3600 connection window*.

There is saved link to the DDS2000.INI file, in 36C project file. DM uses this link to find settings for **data reduction** and **data export**. While data reduction affects only the data captured by DM, the **data export affects the entire database**. As a side effect, also the offline route data will be exported and their *transfer-to-route* flag will be cleared after export! Therefore **we strongly recommend using separate database for each 36C project** or set of 36C project files and **especially using different target databases for online and offline data**.

Do Not Forget

- To **save** (point six above).
- To configure reduction and export rules in DDS (see the *DDS User's Guide* for details how to do it).

What If

- Q: What if I forgot to drag & drop some signal from *A3600 connection window* to the DDS tree?

A: You can open the 36C file again and complete missing signals. Don't forget to **save** project again.

- Q: I collect offline data for a long time into single SQL database and I just added the online project data. What if I forget to configure *Online parameters* in *DDS Options*?
A: After reaching of 250MB, your MS SQL database will be exported. You will get MS Access .mdb database with exported data and ODBC link to the database (e.g. DM_2005.06.16_00:00) in the System DSN. The exported data will be cleared in the MS SQL database.

Capturing Data by Data Manager

1. Run the *DM.exe*.
2. In the DM window, click the *Load Project* button.
3. In the *Open* dialog select the 36C project file you have created in previous two chapters and click the *Open* button.
4. In the DM window, click the *Receive* button.
5. Wait for a while (how long – it depends on A3600 settings, typically several minutes).
6. In the *DDS*, open the database where DM stores the data (it is the database saved in 36C project).
IMPORTANT NOTE: If you have the database already open, please first close it and reopen again. It will initialize DDS caches with newly scanned data. You need to reopen database whenever you wish to check fresh data.
7. Open the tree with DM data and you can check the graphs in usual manner.

Do Not Forget

- To **reopen** database whenever you wish to access most fresh data.

What If

- Q: What if I need to continue with online measuring on the measuring places that I measured by route instruments until now? How to concatenate measured data?
A: **Do not do it.** *DDS* does not support concatenation of data measured by different instruments. Establish **new database** rather, with new tree.
- Q: What if I have *DDS* installed on my workstation however I need to run *DM* on another server and I do not wish to export all the data after each 250MB limit?
A: In the *DDS* menu *Options* choose *Online Collaboration Options*. In the *Online collaboration options* dialog uncheck the *Database Export Enabled* checkbox and click *OK*. Copy the *DDS2000.INI* file to the server to the same path as on your workstation (this is important – the path is recorded in the 36C project file). Then restart *Data Manager*.
- Q: What if *Data Manager* cannot connect to database (data source)?
I can see only lines like:
Code: FFFFFFFE
SELECT TOP 1 FLAGS FROM MainInfo ORDER BY Ident DESC;
SQLExecDirect(...)
in the DM window.
A: Check the *ODBC Data Source* combo box. The name of your database should be selected there. If the combo is empty, you probably do not have the data source properly configured. Check the 36C project file. Read the
[Main]
DbaseName=your_datasource_name

section and verify if you have the data source with same name in ODBC Manager.
IMPORTANT NOTE: This is typical situation when you created the 36C project one a PC running the *DDS* and then you copied it to the second PC running *DM*.

- Q: What if *Data Manager* cannot connect to A3600 system?

I can only see lines like:

Open comm...#0

No.2-Comm error, closing comm.

in the DM window.

A: Stop receiving the data and try to connect the A3600 system by the *3600Setup* software. Perform the same verification steps as described in the chapter *Setting the A3600 System*.

- Q: What if I suddenly stop the MS SQL (MSDE) server?

A: DM will not be able to store captured data until you start the server again. After starting the server, DM will reconnect automatically and will continue storing the captured data again.

Another Ways to Look at Captured Data

Additionally to the DDS application, there two more ways how to view data captured by Online Data Manager.

Http Browser (MSIE, Netscape, etc.)

There resides an embedded http server in the DM. By default it listens on port 11257. You can load the table of captured data into standard *http browser* window. To connect the DM and display the captured values:

1. Run your favorite http browser.
2. Enter the http://your_DM_ip_address:11257 link into the browser's address bar – the table of currently captured items appears.
your_DM_ip_address – the address of computer where DM runs.
3. Click on the link in the right-most table column (e.g. Schema-0/Com 10 LF Ch.1.) – the smaller table that displays item value and description appears.

Refer to the DM manual for more information about setting the DM's http server port on command-line or in the DM.ini file.

Online Data Viewer

Online Data Viewer (ODV) is an application that instantly asks the Data Manager for the **fresh data**. It connects to the DM listening port and submits an http request there. The default port value is 11257. To display currently captured data in ODV:

1. Ask Adash for the latest ODV installation package, put it to your local drive.
2. Run the installation and follow the instructions in the dialog boxes.
3. From the Start/Programs/Adash menu run the Online Data Viewer.
4. Fill in the server IP address in the *Server* edit line.
5. Click on the green arrow button next to the edit line – you will see the list of available items in the left pane.

6. Double-click the items you wish to see – the bar graphs with single bar value open in the right pane. You can close each bar graph by double-clicking the corresponding item again. The value in each graph is updated automatically.

Refer to the ODV manual for more information about setting the server address and port and to learn how to edit the graph pane content.