



AutArch Manual

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3 Backup and restore

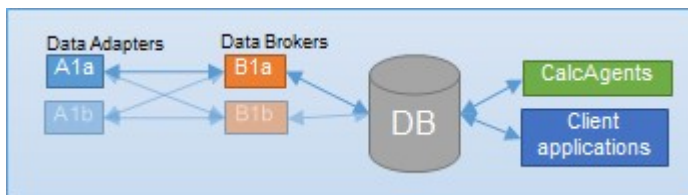
2

Components

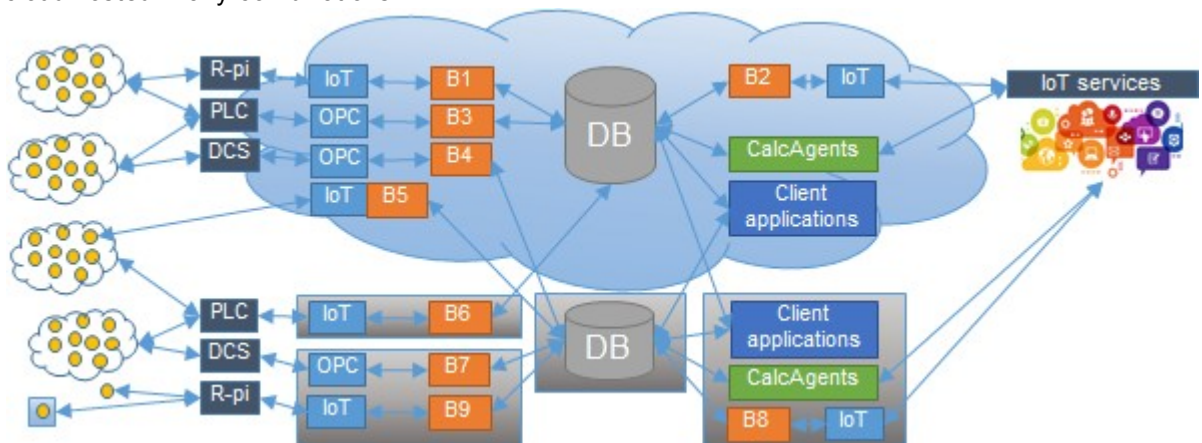
Following main structure components are used within an AutArch system setup

- **Data adapters** as external interfaces.
- **Data brokers** as distributed structure components to handle data transfer/processing in controlled manner.
- **Database** to store data
- **Calc agents** to process/calculate/evaluate data continuously or batchwise.
- **Client applications** for data presentations, analyzing, reporting as well as for system supervision.

All components can be parallellised and distributed, locally stored, centralised. Cloud hosted or locally hosted. The configuration is selected completely dependent on customer system setup, where plant configurations, infrastructure, and system structure are determining parameters for system setup.



Picture shows different variants where components can be used either in local/distributed hosting or cloud hosted in any combinations.



2.1 Database

2.1.1 Date & time format

The dates and times are stored in the database in one of two ways:

- Using the local time zone of the database server's hosting computer
- Using UTC

Which of the ways the database uses can be checked by running the following query:

```
select CfgValue from GUICfgParam where CfgParam='UTC'
```

If the result from the above query is `true`, then UTC is used.

If the result is `false` or empty, local time zone is used.

While using local time zone has the advantage that it is more human readable, it also has the disadvantage of not handling daylight saving time switches very well. The switch from normal time to daylight saving time will interpolate the data during that hour, and the switch from daylight saving time to normal time will lose one hour of data!

2.1.2 Install instructions

2.1.2.1 Prerequisites

The AutArch database requires Microsoft SQL Server 2008 or newer.

In the current version of AutArch Microsoft SQL Server 2014 Standard is included.

Basic prerequisites (for full list of prerequisites see link below):

- DotNet Framework: 3.5 and 4.0
- Windows Powershell
- Disk space: minimum 6GB
- RAM: minimum 4GB
- Processor speed: minimum 2.0 GHz
- Operating sytem: Windows Server 2008 R2 SP1, Windows Server 2012, Windows Server 2016, Windows 7 SP1, Windows 8, Windows 10

A complete list of prerequisites for Microsoft SQL Server 2014 can be found here: <https://technet.microsoft.com/en-us/library/ms143506%28v=sql.120%29.aspx?f=255&MSPPErrors=-2147217396>

2.1.2.2 Installation

The AutArch database can be installed in an existing or in a new Microsoft SQL Server instance.

Install the database by starting "AutArchDatabaseSetup.exe" and follow the steps in the wizard. If a new Microsoft SQL server should be installed make sure that you are using the SQL setup package included in the AutArch release.

2.1.2.3 Update

To update the Microsoft SQL server please see recommendations from Microsoft.

The AutArch database is updated by running Global update from Service monitor.

2.2 Workspace

2.2.3 Install instruction

2.2.3 Install instruction

2.2.3 Install instruction

2.2.3.1 Prerequisites

- DotNet Framework: 3.5 and 4.0
- Disk space: minimum 300MB
- RAM: minimum 2GB
- Processor speed: minimum 2.0 GHz
- Operating system: Windows XP, Windows Server 2003 or newer

2.2.3.2 Installation

AutArch Workspace can be distributed with either a ClickOnce package or a single setup.

Clients installed with the ClickOnce package is updated automatically when a new version is available on the shared drive.

All clients installed with the single setup has to be updated manually.

2.2.3.2.1 ClickOnce

AutArch Workspace can be distributed with ClickOnce technology which means that the Workspace only needs to be installed once, updates are then installed automatically.

To install AutArch Workspace put the entire ClickOnce folder on a shared drive that is accessible from all planned clients.

Start the installation by running "Setup.exe" on each client.

The first client that installs the Workspace will be asked to enter connection setting to the database. These settings are then shared with all other clients.

2.2.3.2.2 Single setup

Install AutArch Workspace by starting "AutArchWorkspaceSetup.exe" and follow the steps in the wizard.

The first time AutArch Workspace is started the user will be asked to enter connection settings to the database.

2.2.3.3 Update

2.2.3.3.1 ClickOnce

Copy the new ClickOnce package to the share from which the workspace is installed, overwrite any existing files.

All clients will automatically get updated the next time they are started.

2.2.3.3.2 Single setup

Update AutArch Workspace by starting the new version of "AutArchWorkspaceSetup.exe" and follow the steps in the wizard.

2.3 SupervisionServer

2.3.1 Install instructions

2.3.1.1 Prerequisites

- DotNet Framework: 3.5 and 4.0
- Hard-disk space: minimum 300MB
- RAM: minimum 2GB
- Processor speed: minimum 2.0 GHz
- Operating system: Windows XP, Windows Server 2003 or newer

2.3.1.2 Installation

To install the SupervisionServer start the "AutArch SupervisionServer Setup.exe" and follow the steps in the wizard.

2.3.1.3 Update

The Supervision server is updated by running Global update from Service monitor.

2.3.1.3.1 Update version prior to 3.0

Versions prior to 3.0 cannot be updated with Global update.

These have to be updated manually by running the "AutArch SupervisionServer Setup.exe" locally on each computer.

2.4 Services

2.4.2 Install instruction

2.4.2 Install instruction

2.4.2.1 Prerequisites

- DotNet Framework: 3.5 and 4.0
- Hard-disk space: minimum 200MB
- RAM: minimum 2GB
- Processor speed: minimum 2.0 GHz
- Operating system: Windows XP, Windows Server 2003 or newer

2.4.2.2 Installation

Services are installed from the Service monitor tool in Workspace.

2.4.2.2.1 RecordingNode redundancy configuration

The RecordingNode redundancy configuration can be setup manually for each service or by using the redundancy wizard in ServiceMonitor.

2.4.2.3 Update

All services are updated by running Global update from Service monitor.

2.4.2.3.1 Update services version 1.x.x and 2.x.x

Updates for older services are not as automated.

Therefore more manual steps are required to create as little disturbance as possible..

1. Write down configuration of existing services.
2. Install new services (without starting them) according to the configuration from the old.

3. Start the new services and stop the old ones.
4. Uninstall the old services.

2.4.2.3.1.1 Configuration needed for recording services

- Database connection settings
- Redundancy settings
- Buffer directory
- OPCDACLientName/Responsible
- Adapter type

2.5 LiveExcel

2.5.1 Install instructions

2.5.1.1 Prerequisites

- DotNet Framework: 3.5 and 4.0
- Hard-disk space: minimum 200MB
- RAM: minimum 2GB
- Processor speed: minimum 2.0 GHz
- Operating system: Windows XP, Windows Server 2003 or newer
- Excel 2010 or newer

2.5.1.2 Installation

AutArch LiveExcel is distributed with ClickOnce technology which means that the Excel plugin only needs to be installed once, updates are then installed automatically.

To install AutArch LiveExcel put the ClickOnce folder on a shared drive that is accessible from all planned clients.

Start the installation by running "Setup.exe".

2.5.1.3 Update

Copy the new ClickOnce package to the share from which the workspace is installed, overwrite any existing files.

All clients will automatically get updated the next time they are started.

2.6 Report

2.6.2 Install instructions

2.6.2 Install instructions

2.6.2.1 Prerequisites

- DotNet Framework: 3.5 and 4.0
- Hard-disk space: minimum 200MB
- RAM: minimum 2GB
- Processor speed: minimum 2.0 GHz
- Operating system: Windows XP, Windows Server 2003 or newer
- Excel 2010 or newer

2.6.2.2 Installation

The binaries for AutArch report is checked in to the FileStore tables in the database.

The same binaries are used for the editor and the generator.

The binaries and templates for AutArch report can be checked in by either Global update (recommended) or the File repository tool in AutArch Workspace.

The first time a report template is opened.

AutArch Report is installed automatically the first time a report template is opened from the Workspace Report tool or by a Report Generator.

2.6.2.2.1 Adding a customised StandardTemplate and configuration

To be documented.....

2.6.2.3 Update

The report binaries are updated by running Global update from Service monitor.

Note: [ReportGenerator](#) and [Workspace](#) might have to be updated too.

2.7 XMZ Import/Export

2.7.1 XMZ property descriptions

3 Backup and restore

All important data in an AutArch system is stored in the database.

This describes different ways to backup the database and to restore it if necessary.