
# A.A.A.R. Manual Installation

Prepared by: Vincenzo Sorrentino

**Senior Solution Architect**

View my profile on LinkedIn

Date

03/05/2016

# Index

# Overview

This guide has been created to give an alternative way to install A.A.A.R application in all the cases the standard wizard could not works. Below an example of cases where could be useful to do a manual installation:

1. When you have a distributed environment (Eg. when DBMS is on a machine other than the pentaho BI Server machine)
2. When you want to understand what the wizard do more deeply

The guide take the following application stack as reference on Linux environment:

- Alfresco 5.1
- MySQL 5.6
- Pentaho BI Server 6.1
- Pentaho Data Integration 6.1
- AAAR 4.3

Depending on the version of your environment you could change some steps in order to complete successfully the installation also with other supported application (Eg. for DBMS PostgreSQL or for different version of Pentaho and Alfresco, please see the compatible matrix for details of application version supported)

This guide use the same nomenclature adopted from Francesco Corti in his guide, so the terms and the path should be the mantained (as well as <biserver-ce> path etc.). Moreover assume that you have already develop all the steps described in the online guide "How to Install A.A.A.R" until Get A.A.A.R, so it is intended to replace only the step **Install A.A.A.R.**

# Installation steps

In order to do a manual installation you have to download the MySQL Client package on the Pentaho BI Server machine

## Create DataMart and Kettle schemas

This task creates two new database schema called AAAR_DataMart and AAAR_Kettle on your remote database MySQL (hostname: <mysql-host>).

Go to <biserver-ce>/pentaho-solution/system/AAAR/endpoints/kettle/src/Alfresco_5_1/MySql/ and execute the following statements:

Create AAAR_DataMart

```
mysql -h <mysql-host> -uroot -p  < AAAR_DataMart.sql
```

Create AAAR_Keetle

```
mysql -h <mysql-host> -uroot -p  < AAAR_Kettle_v6.sql
```

and for each statement insert the mysql root password when prompt

## Configure DataMart schema to change Alfresco parameters

Alfresco URL and credentials

Connect to mysql server using

```
mysql -h <mysql-host> -uroot -p
```

insert the mysql root password when prompt and modify parameters according your Alfresco installation:

```
use AAAR_DataMart
UPDATE dm_dim_alfresco SET login='<alfresco-admin-login>', password='<alfresco-admin-password>', url='<alfresco-url>'
```

Eg. <alfresco-admin-login>: admin, <alfresco-admin-password>: admin, <alfresco-url>: http://<alfresco-host>:8080

Alfresco FTP

```
UPDATE dm_reports SET pentaho_url='<pentaho-url>', alfresco_ftp='<alfresco-ftp-ip>', alfresco_port='<alfresco-ftp-port>';
```

Eg <alfresco-ftp-ip>:172.18.0.2, <alfresco-ftp-port>:1121, <pentaho-url>: http://localhost:8080/pentaho

## Configure JNDI datasource in Pentaho Data Integration to connect to Kettle schema

Open file <data-integration>/simple-jndi/jdbc.properties

Add the following lines (changing properly the mysql host, and password params):

```
# A.A.A.R. - Alfresco Audit Analysis and Reporting - AAAR_DataMart.
AAAR_DataMart/type=javax.sql.DataSource
AAAR_DataMart/driver=com.mysql.jdbc.Driver
AAAR_DataMart/url=jdbc:mysql://<mysql-host>:3306/AAAR_DataMart
AAAR_DataMart/user=root
AAAR_DataMart/password=<mysql-root-password>
# A.A.A.R. - Alfresco Audit Analysis and Reporting - AAAR_Kettle.
AAAR_Kettle/type=javax.sql.DataSource
AAAR_Kettle/driver=com.mysql.jdbc.Driver
AAAR_Kettle/url=jdbc:mysql://<mysql-host>:3306/AAAR_Kettle
AAAR_Kettle/user=root
AAAR_Kettle/password=<mysql-root-password>
```

## Configure JNDI datasource in Pentaho BI to connect to DataMart schema[1]

Open file <biserver-ce>/tomcat/webapps/pentaho/WEB-INF/web.xml

Insert the following code after last resource-refs:

```
<!-- insert additional resource-refs -->

  <resource-ref>
    <description>AAAR_DataMart</description>
    <res-ref-name>jdbc/AAAR_DataMart</res-ref-name>
    <res-type>javax.sql.DataSource</res-type>
    <res-auth>Container</res-auth>
  </resource-ref>

  <resource-ref>
    <description>AAAR_Kettle</description>
    <res-ref-name>jdbc/AAAR_Kettle</res-ref-name>
    <res-type>javax.sql.DataSource</res-type>
    <res-auth>Container</res-auth>
  </resource-ref>
```

[1] For some Pentaho version is possible to configure JNDI datasource for BI in the way of data-integration modifying <home>/.pentaho/simple-jndi/default.properties and add the same properties inserted in data-integration

Open file <biserver-ce>/tomcat/webapps/pentaho/WEB-INF/web.xml

Add the following code:

```
<Resource name="jdbc/AAAR_DataMart" auth="Container" type="javax.sql.DataSource"
        factory="org.apache.commons.dbcp.BasicDataSourceFactory" maxTotal="20" maxIdle="5"
        maxWaitMillis="10000" username="root" password="<mysql-root-password>"
        driverClassName="com.mysql.jdbc.Driver"    url="jdbc:mysql://<mysql-host>:3306/AAAR_DataMart"
validationQuery="select 1"/>

<Resource name="jdbc/AAAR_Kettle" auth="Container" type="javax.sql.DataSource"
        factory="org.apache.commons.dbcp.BasicDataSourceFactory" maxTotal="20" maxIdle="5"
        maxWaitMillis="10000" username="root" password="<mysql-root-password>"
        driverClassName="com.mysql.jdbc.Driver"      url="jdbc:mysql://<mysql-host>:3306/AAAR_Kettle"
validationQuery="select 1"/>
```

## Configure Pentaho Data Integration repository

Create, if doesn't exists, a file repositories.xml in <home>/kettle/.repositories.xml

Add the following code:

```
<?xml version="1.0" encoding="UTF-8"?>
<repositories>
  <connection>
    <name>AAAR_Kettle</name>
    <server/>
    <type>MYSQL</type>
    <access>JNDI</access>
    <database>AAAR_Kettle</database>
    <port>-1</port>
    <username/>
    <password>Encrypted </password>
    <servername/>
    <data_tablespace/>
    <index_tablespace/>
    <attributes>
      <attribute><code>FORCE_IDENTIFIERS_TO_LOWERCASE</code><attribute>N</attribute></attribute>
      <attribute><code>FORCE_IDENTIFIERS_TO_UPPERCASE</code><attribute>N</attribute></attribute>
      <attribute><code>IS_CLUSTERED</code><attribute>N</attribute></attribute>
      <attribute><code>PORT_NUMBER</code><attribute>-1</attribute></attribute>
      <attribute><code>PRESERVE_RESERVED_WORD_CASE</code><attribute>N</attribute></attribute>
      <attribute><code>QUOTE_ALL_FIELDS</code><attribute>N</attribute></attribute>
      <attribute><code>SUPPORTS_BOOLEAN_DATA_TYPE</code><attribute>Y</attribute></attribute>
      <attribute><code>SUPPORTS_TIMESTAMP_DATA_TYPE</code><attribute>N</attribute></attribute>
      <attribute><code>USE_POOLING</code><attribute>N</attribute></attribute>
    </attributes>
```

```
</connection>
<repository>    <id>KettleDatabaseRepository</id>
  <name>AAAR_Kettle</name>
  <description>AAAR_Kettle</description>
  <connection>AAAR_Kettle</connection>
</repository>  </repositories>
```

## Load AAAR repository structure

Connect to pentaho user console

Click on browse

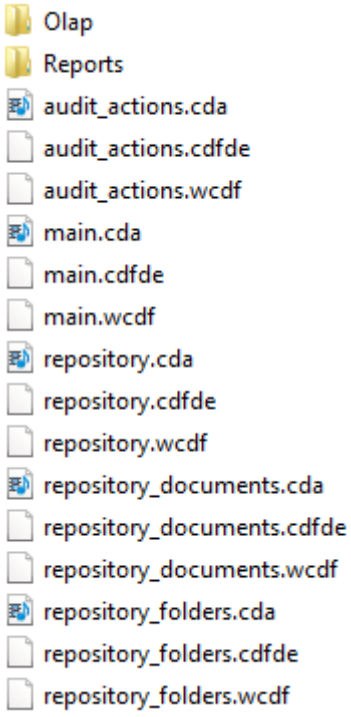
Click on Public folder

Create a folder named **AAAR**

Replicate the whole structure defined in <biserver-ce>/pentaho-solution/system/AAAR/endpoints/kettle/src/Alfresco_5_1/MySql/Repository. At the end you should have a following structure:

**Public**

**AAAR**




## Load Data using the Extract procedure

Access to <biserver-ce>/pentaho-solution/system/AAAR/endpoints/kettle/script folder using pentaho user and execute

```
./AAAR_Extract.sh
```

Control log if the procedure has been executed successfully

For additional information to execute the procedure see Extract

## Access to main AAAR Dashboard

If you do all the steps, you should be able to access to main AAAR Dashboard.

So access to Pentaho User console and go to Tools→AAAR and that's it!

## (Optional) Test Publish procedure

If want you can upload in Alfresco the executed reports from AAAR.

In order to do this, access to <biserver-ce>/pentaho-solution/system/AAAR/endpoints/kettle/script folder using pentaho user and execute

```
./AAAR_Publish.sh
```

Control log if the procedure has been executed successfully

For additional information to execute the procedure see Publish