Installation Guide

Apparo Fast Edit

For IBM Red Hat/IBM AIX/SUSE Linux

IBM Cognos Analytics

Version 3.2.2

Multi Instance

1 Prior to Installation 4
1.1 Hardware requirements 4
1.2 Supported operating systems 4
1.3 Supported IBM Cognos Analytics versions 4
1.4 Supported Java VM 4
1.5 Supported web servers 4
1.6 Supported security systems 4
1.7 Supported virtual environments 4
1.8 Installation strategy 6
1.9 Architecture 7
2 Preparation 8
2.1 Creation of a database user for the Apparo repository 9
3 Installation of all Apparo application servers 10
3.1 License agreement 11
3.2 Selecting the architecture 12
3.3 Defining the installation directory 13
3.4 Carrying out the installation 13
3.5 Installation finish 14
4 Configuration of all Apparo application servers 15
4.1 Architecture 19
4.2 Application server 20
4.3 IBM Cognos Analytics 21
4.4 File system paths 22
4.4.1 File path to batch/executable files 22
4.4.2 File path to client definitions 22
4.4.3 File path to custom java classes 22
4.4.4 Oracle Client path to tnsnames.ora 22
4.4.5 Java Keystore path and name 23
4.4.6 Java Keystore password 23
4.5 Web security system 24
4.5.1 Setting “Web security groups for administrators”: 24
4.5.2 Using multiple LDAP/Active Directory servers parallel 25
4.5.3 Using SASL/Kerberos 26
4.6 eMail security system 27
4.7 Repository 28
4.8 License key 29
5 Creating the Apparo Designer entry in IBM Cognos portal 30

6 Installation of the Apparo gateway 34
6.1 License agreement 36
6.2 Architecture 36
6.3 Defining the target file directory 37
6.4 Carrying out the installation 38
6.5 Installation finish 38
7 Configuration of the Apparo gateway 39
7.1 Architecture 42
7.2 Apparo gateway 42
7.3 Application Server 43
7.4 IBM Cognos Analytics 43
7.5 Configuration of the Apache web server 44
7.6 Configuration of the IHS (IBM Webserver) 47
8 Installing clients 50
9 Configuration Manager using command line 53
10 Import/Export definitions using command line 54
10.1 Exporting definitions 54
10.2 Importing definitions 55
11 Support 56

1 Prior to Installation

Installing Apparo Fast Edit can be done in 1 hour if you prepare your environment.

Please be aware of the following points before starting installation:

1.1 Hardware requirements

- **File system about 1 GB**
- **Main Memory about 2 GB**

1.2 Supported operating systems

- **IBM Red Hat**
- **IBM AIX**
- **Suse Linux**

1.3 Supported IBM Cognos Analytics versions

- **IBM Cognos Analytics 11.0.6 – current (with Cognos Gateway architecture only)**

1.4 Supported Java VM

- **OpenJDK 8**

1.5 Supported web servers

- **Apache Webserver 2.4**
- **IBM IHS**

1.6 Supported security systems

- **All security systems that are currently in use for IBM Cognos Analytics**

1.7 Supported virtual environments

- **VMware ESX, ESXi**

Apparo Fast Edit must be installed using a local root account.

The Cognos Analytics Firewall (CAF) is supported too. It is possible to use standard settings or adding host name/domains into the list of valid domains.

IBM Cognos Analytics must be already installed and running.

The IBM Cognos Analytics Gateway must be already installed.

OpenJDK 8 must be already installed.

1.8 Installation strategy

Following steps are necessary in this order:

1	**Database preparation for Apparo repository**
2	**Installation and configuration of all Apparo application servers**
3	**Installation and configuration of Apparo gateway including web server**

1.9 Architecture

Possible Apparo Fast Edit architectures:

1	**Single Instance**, your existing IBM Cognos Analytics environment is installed on **one computer only – that's suitable for testing too.** A „Single Instance" is useful for small Cognos environments or test systems.
2	**Multi Instance**, one or more Apparo application servers are installed on one or more hosts. A „Multi Instance" is useful for better performance and high availability.

This document is describing the installation and configuration process for a Multi Instance.

Preparation

1	**Preparation** • Analysing environment • Creation of a **database user** for the Apparo repository
2	**Installation of all Apparo application servers**
3	**Configuration of all Apparo application servers** Configuration using the Apparo Configuration Manager
4	**Creating the Apparo Designer entry in IBM Cognos portal**
5	**Installation of the Apparo gateway**
6	**Configuration of the Apparo gateway** Configuration the web server and the Apparo gateway using the Apparo Configuration Manager
7	**Installing clients**

2.1 Creation of a database user for the Apparo repository

Apparo Fast Edit requires a Database repository. In this repository all of your definitions are stored.

Following databases are supported:

- **Oracle**
- **IBM DB/2 LUW**
- **MS SQL Server**

This database user must be defined <u>before</u> starting the Apparo Fast Edit setup.

You can find a detail description in the document "Installation – creating database user".

Essential grants:

- The database user must be able to create database tables
- A Login with this user must be possible

3 Installation of all Apparo application servers

1	**Preparation** • Analysing environment • Creation of a **database user** for the Apparo repository
2	**Installation of all Apparo application servers**
3	**Configuration of all Apparo application servers** Configuration using the Apparo Configuration Manager
4	**Creating the Apparo Designer entry in IBM Cognos portal**
5	**Installation of the Apparo gateway**
6	**Configuration of the Apparo gateway** Configuration the web server and the Apparo gateway using the Apparo Configuration Manager
7	**Installing clients**

Start the Installation by starting the file

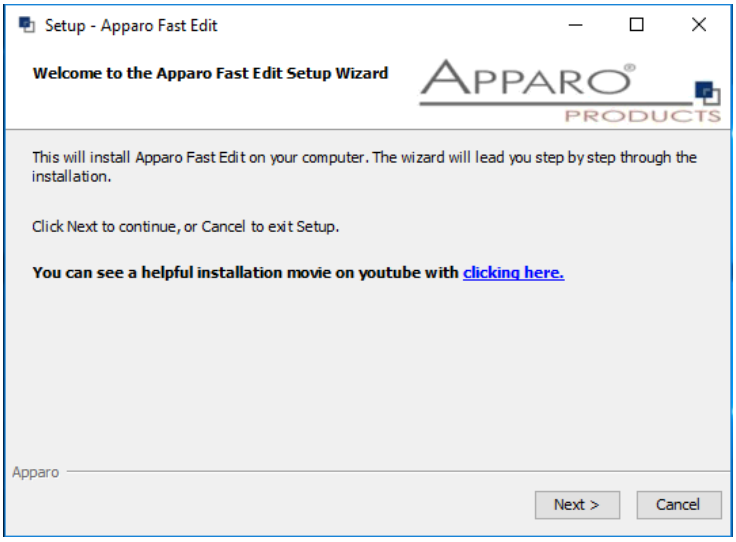
FastEdit3.2.2.y_zzz_linux_tomcat_cognos_analytics.sh

Or

FastEdit3.2.2.y_zzz_aix_tomcat_cognos_analytics.sh

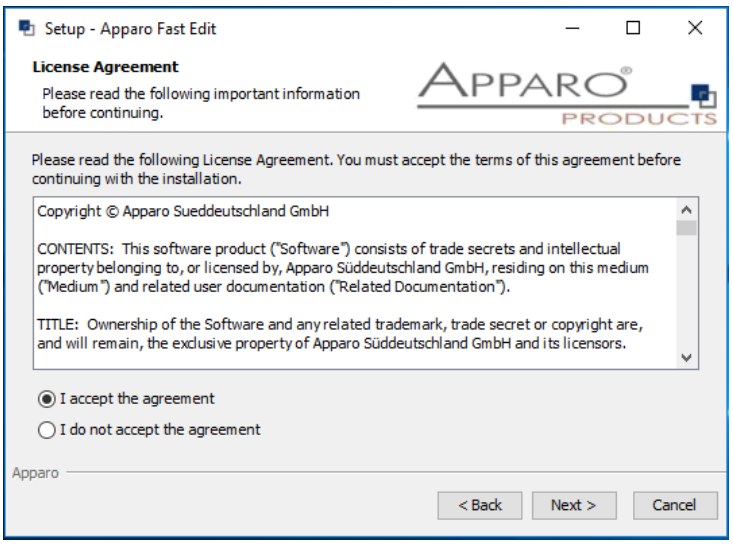
You must define the variable INSTALL4J_JAVA_HOME first.
It must have the path to the Java8/OpenJDK 8 installation.

Example: export INSTALL4J_JAVA_HOME=/etc/vm/jv8



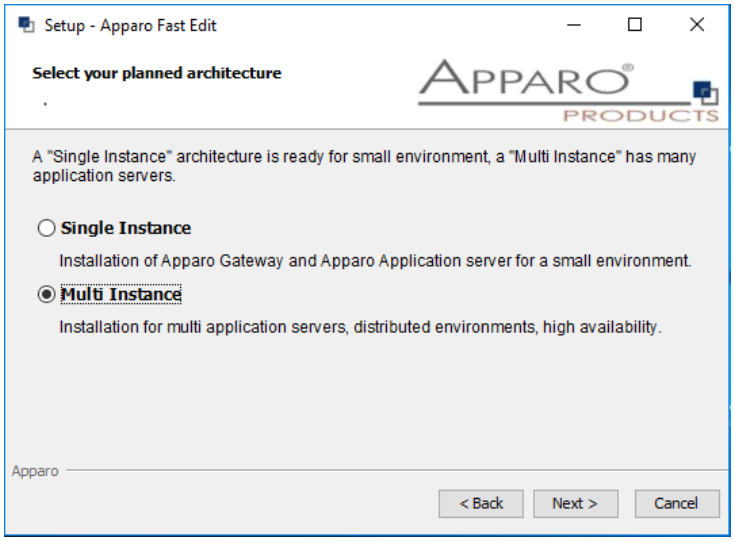
Confirm the beginning of the installation by clicking „**Next**“.

3.1 License agreement

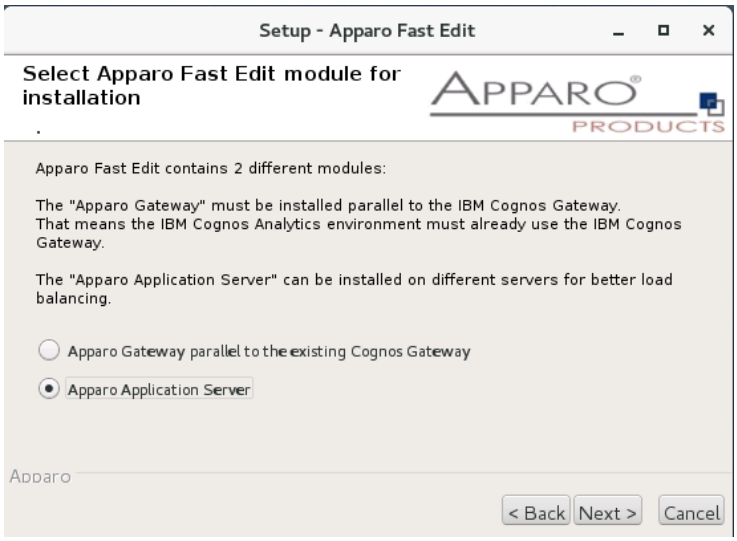


Read and confirm the license agreement by clicking „**Next**“.

3.2 Selecting the architecture

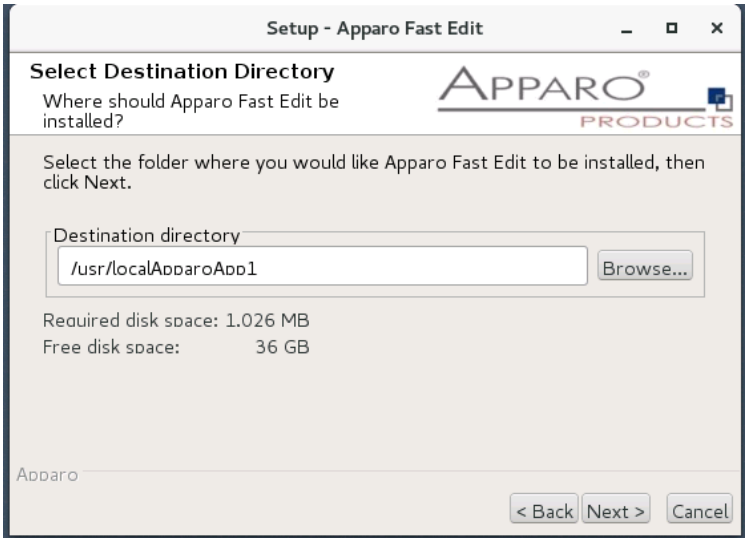


Select "**Multi Instance**" and choose „**Next**>".



Please select "**Apparo application Server** " and choose „**Next**>".

3.3 Defining the installation directory

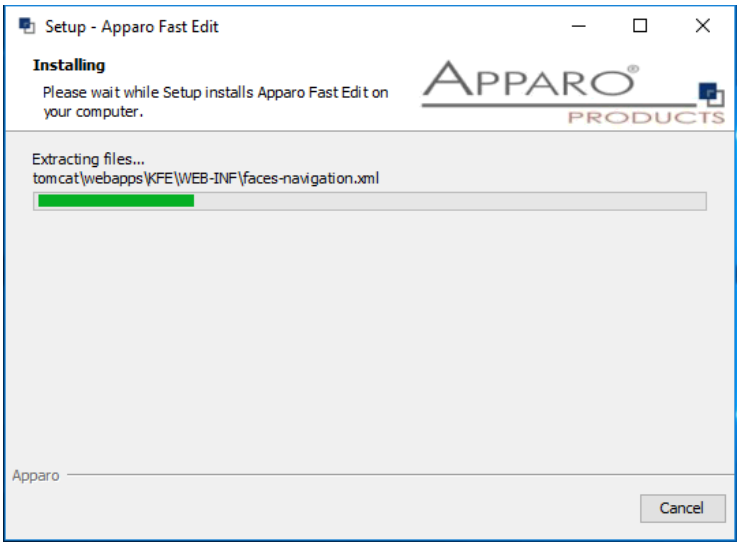


Please define folder and path and choose „**Next >**“.

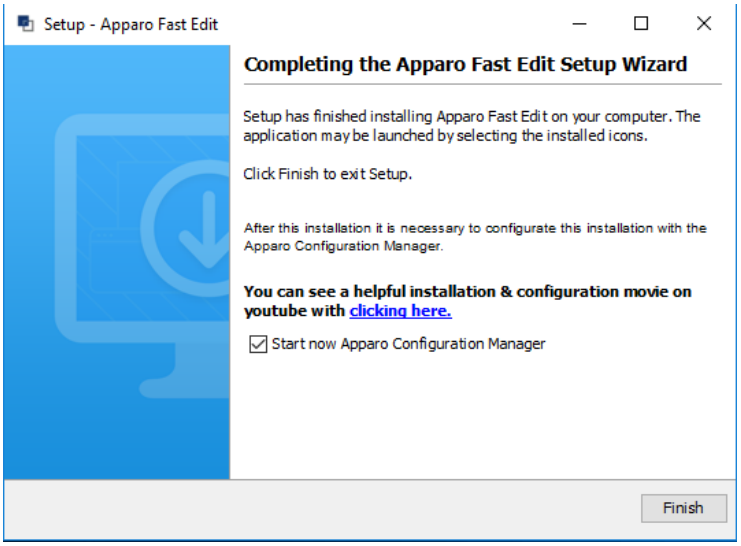
Typical folder: /usr/localApparoApp1
Use for each application sever an unique installation path.

3.4 Carrying out the installation

Finally the installation of Apparo Fast Edit with the selected architecture will start.
After that this installation must be configured with the **Apparo Configuration Manager**.



3.5 Installation finish



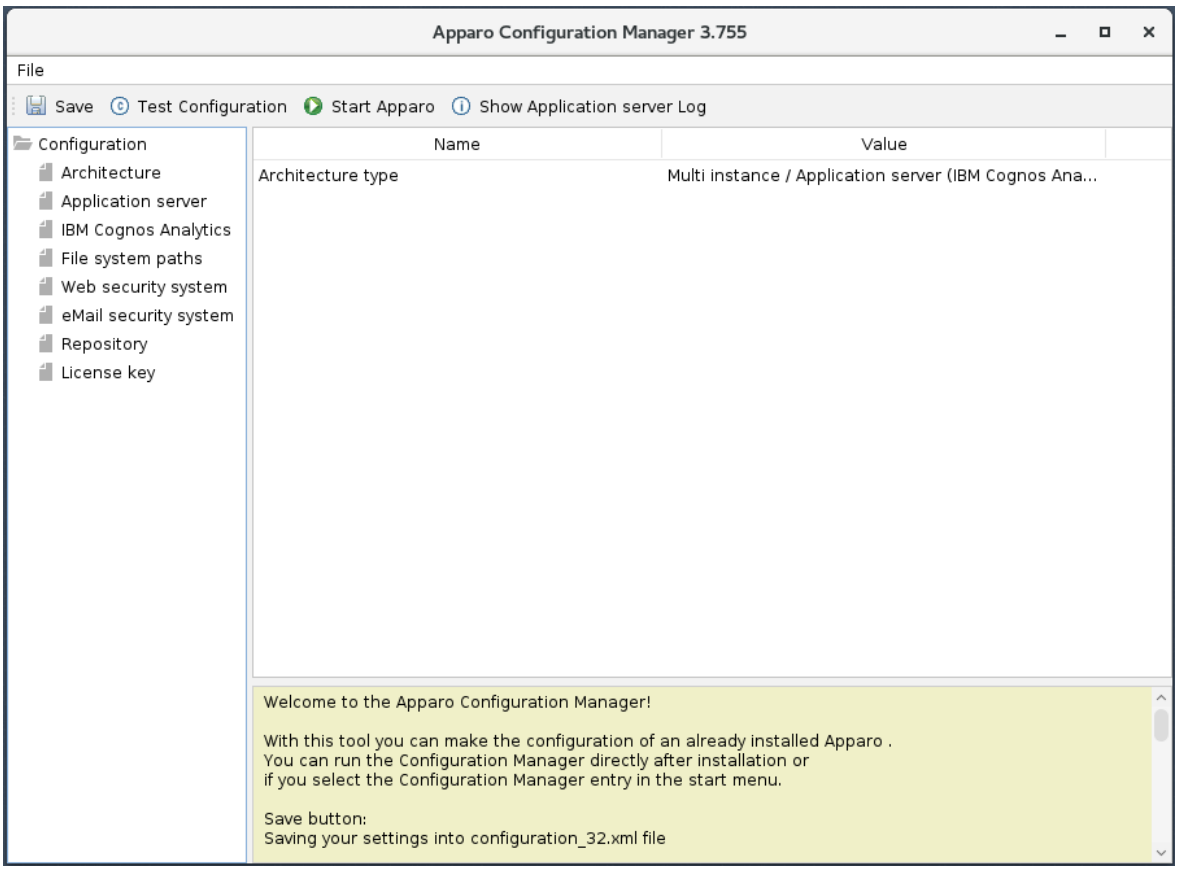
Now it's time to **configure** the installation with the **Apparo Configuration Manager.**

Click „**Finish**" for completing the installation and to start the configuration.

4 Configuration of all Apparo application servers

1	**Preparation** • Analysing environment • Creation of a **database user** for the Apparo repository
2	**Installation of all Apparo application servers**
3	**Configuration of all Apparo application servers** Configuration using the Apparo Configuration Manager
4	**Creating the Apparo Designer entry in IBM Cognos portal**
5	**Installation of the Apparo gateway**
6	**Configuration of the Apparo gateway** Configuration the web server and the Apparo gateway using the Apparo Configuration Manager
7	**Installing clients**

With the **Apparo Configuration Manager** you are able to configure the already installed Apparo application server.



The settings are grouped into chapters (left side).

For each setting you can read a helpful description text in the yellow box.

To do list:

1	**Define all settings**
2	**Press the „Test Configuration“ button for testing all settings**
3	**Press the „<u>Start Apparo</u>“ button for starting the application server**
4	**You can see the log file of the application server with pressing „<u>Show Log</u>“** **If the application server is running then you can see in the log:** **2020-11-07 02:37:41,831 INFO com** **++** **+ Apparo Fast Edit 3.2.2.y (Build nnn) was successfully started at 07.11.2020 02:37:41 +** **++**

Test of an Apparo application servers without using an Apparo gateway:

http://<applicationserver:<startport>/apparo/pages/apptest.xhtml

Example: http://server1:18000/apparo/pages/apptest.xhtml

With this URL you can test if the Apparo application server is running fine or has problems.

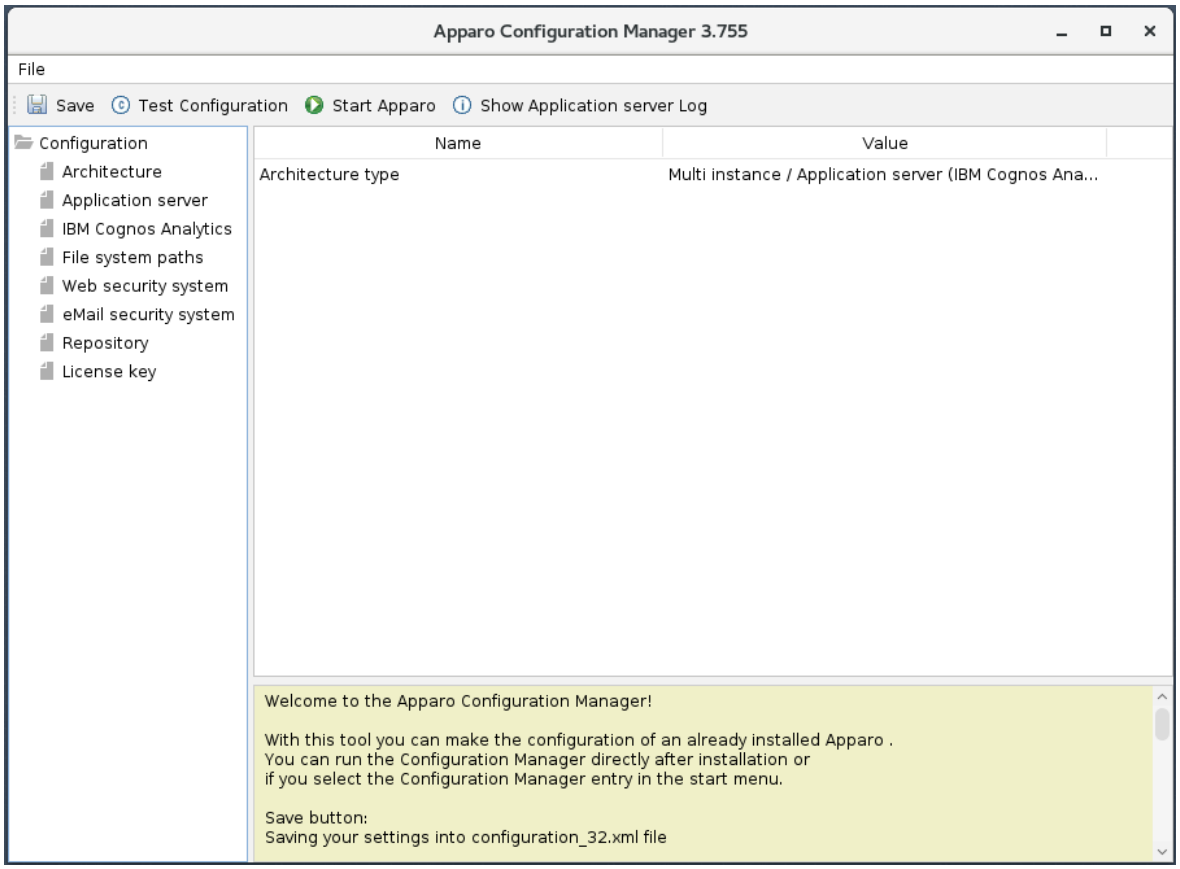
The configuration of Apparo Fast Edit is stored in file configuration.xml in file directory [APPARO_HOME]/FastEdit/cm .

If you plan a parallel/cluster system then it's sometimes comfortable to copy this file into the target system.

If you open the Apparo Configuration Manager then you will see the same configuration settings like of your source system and it's possible to change it comfortable.

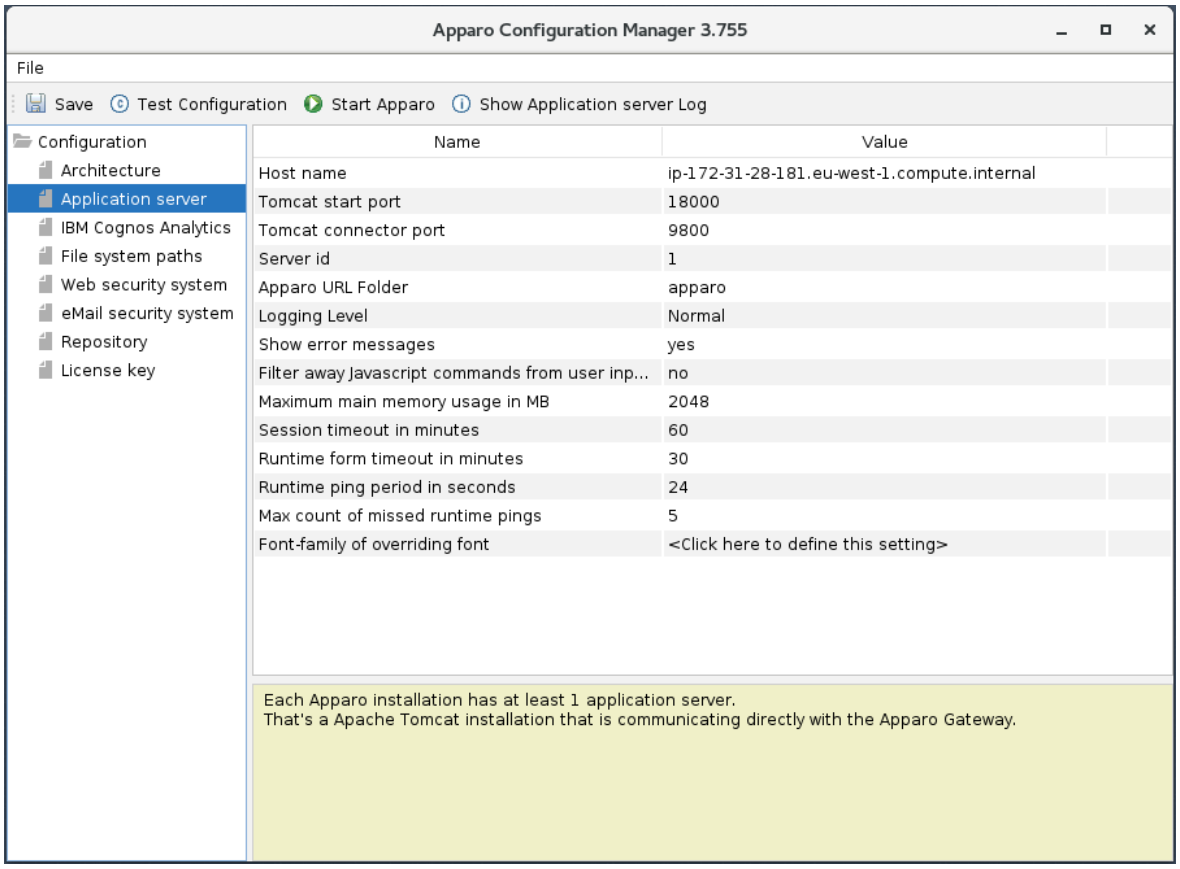
4.1 Architecture

In this section of the Configuration Managers you can find the selected Fast Edit architecture.
This architecture was defined at installation time and is not changeable now.



4.2 Application server

Settings for the application server:

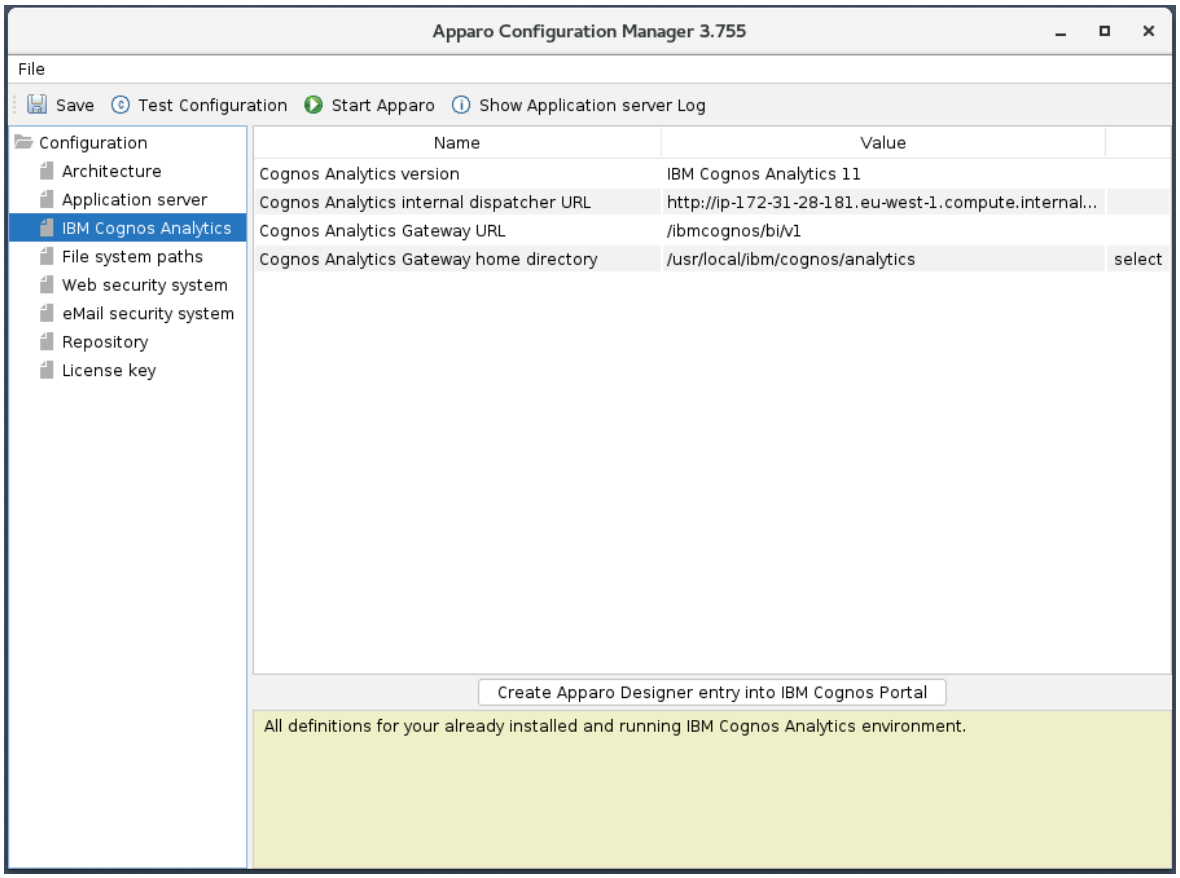


The setting **Server ID** is important in a multi-application environment.
Each application server has an unique ID starting with 1, then 2,3,4…

This Server ID must be used later in the **Apparo gateway settings too.**

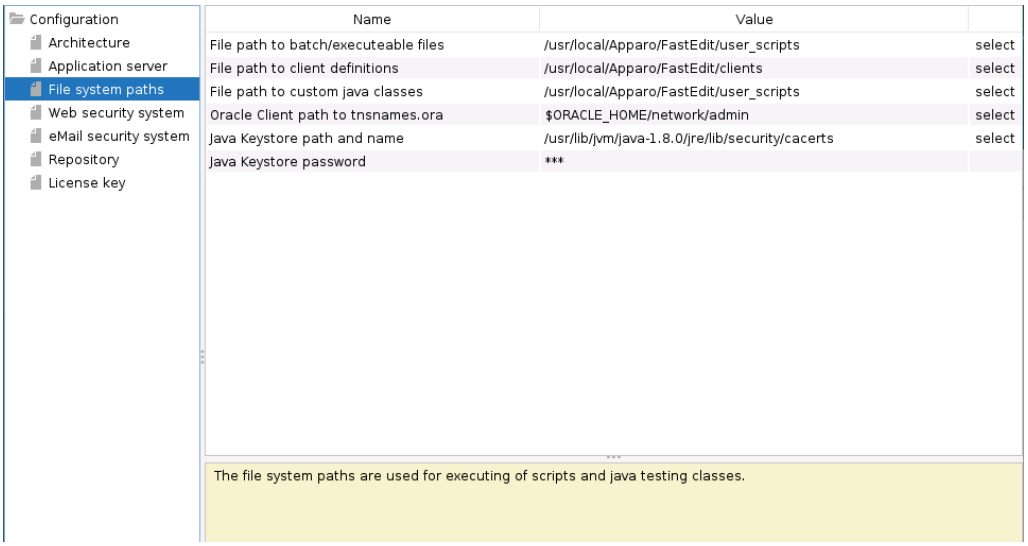
4.3 IBM Cognos Analytics

Settings for the already installed Cognos Analytics environment:



4.4 File system paths

With the file systems paths you can define the place for storing batch files that can be called from a Business Case, Java test classes for data quality checks, path to the client definitions, Oracle client and Java keystore for certificates.



4.4.1 File path to batch/executable files

It is possible to call executable files, scripts, batch files, javascript files etc. in a Business Case.
The Apparo system wide file directory is defined here. Every Business Case of every client can access this file directory.

Each client has an own user_scripts file directory that is accessible for Business Cases of this client **only**. You can find this file directory in the file directory of the client in the clients file directory.

4.4.2 File path to client definitions

Client depending CSS files and icons are stored in the clients file directory. In a cluster environment all Apparo instances must be able to access this file directory.

4.4.3 File path to custom java classes

It is possible to call Java classes in a Business Case.
The Apparo system wide file directory is defined here. Every Business Case of every client can access this file directory.

4.4.4 Oracle Client path to tnsnames.ora

If you want to use an Oracle Client that is installed server-side then you must define the path to the used tnsnames.ora file.

4.4.5 Java Keystore path and name

If you want to use TLS/SSL connections to other servers like application servers, databases or LDAP/Active Directory servers and the certificate is not public available then you must add your certificates into the Java machine that is used for Apparo.

The certificates are stored in [JAVA_HOME]\lib\security\cacerts
The Java VM is not part the of Apparo installation and therefore you must inform Apparo about the path to this file.

You can import your certificate with following command:

For a Linux environment:

sudo keytool -importcert -file filename.cer -alias randomaliasname -keystore $JAVA_HOME/lib/security/cacerts -storepass changeit

After that you must restart the Apparo Configuration Manager again.

4.4.6 Java Keystore password

The Java key store is secured with a password. Default password is “changeit”.

4.5 Web security system

Following security systems are supported:

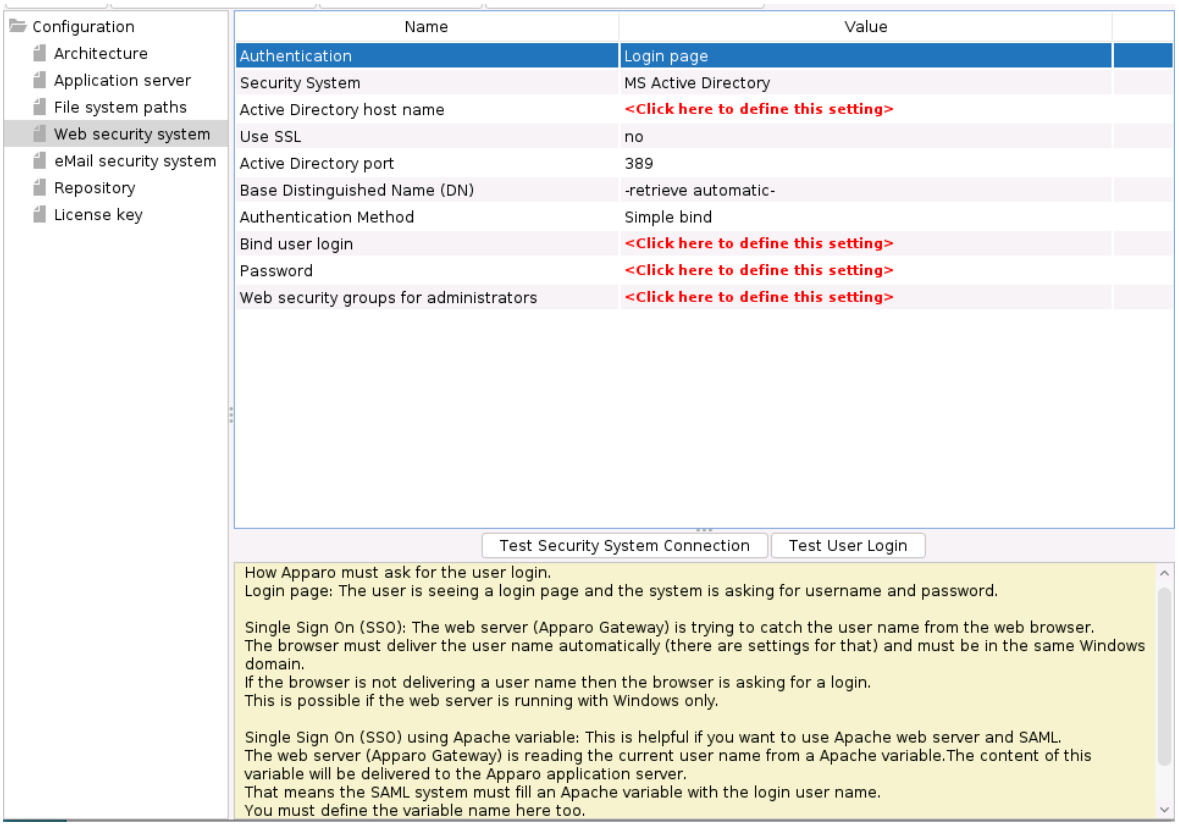
- LDAP
- Active Directory / Kerberos
- No security system

If you want to use Microsoft Azure Active Directory then you must use the version 3.3 of Apparo.

Following authentication ways are possible:

- No logon, no security
- Logon page
- Single Sign On (Apache web server using Apache environment variable for login name, e.g. for SAML)

Bind user login for Active Directory: Please use the domain name too, e.g. APP2/Administrator



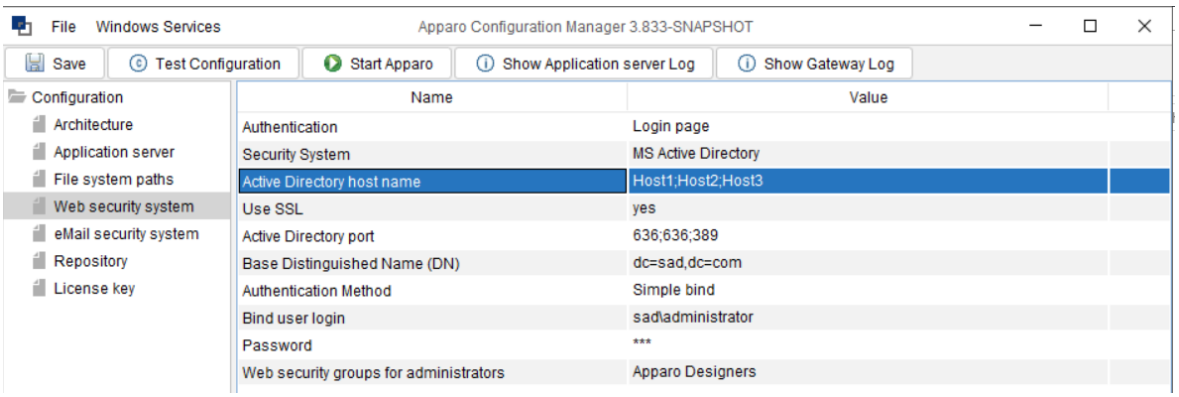
4.5.1 Setting “Web security groups for administrators”:

If a user is member of the security group that is here defined then this user has **full access** and can see and change the content of all clients in the Apparo Designer.

If this setting remains **empty** then everybody has **full access**.

4.5.2 Using multiple LDAP/Active Directory servers parallel

If you use multiple Active Directorys and the simple bind protocol, you can use a list with multiple entries of AD hostnames, AD ports and Base Distinguished Names separated by semicolons (;).



The order is important and the number of values should match, if there are three AD servers, they should be entered like host1;host2;host.

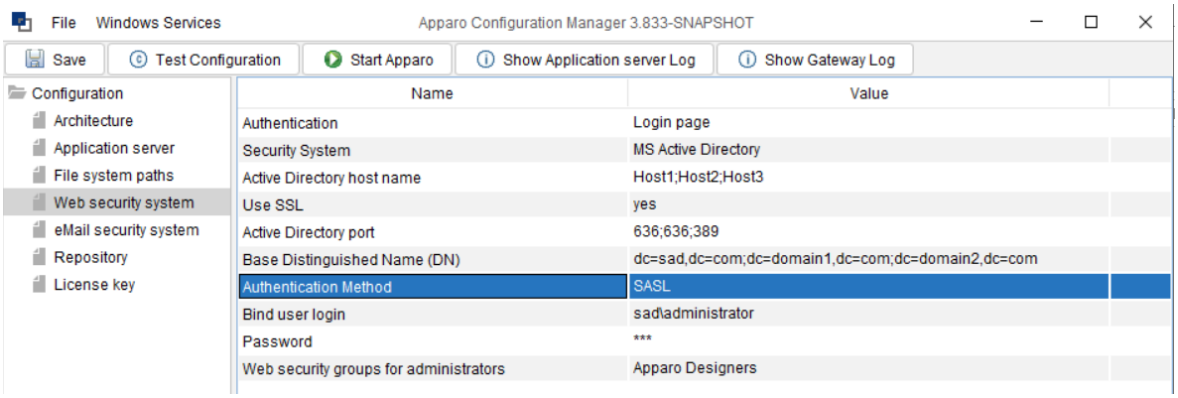
If they all use the same port, it can be entered only once, for example 636.
Otherwise, you need to enter three values like 636;636;389.

This also applies to the Base Distinguished Names, if they are all the same, this only needs to be entered once. Multiple Base Distinguished Names work with SASL/Kerberos only.

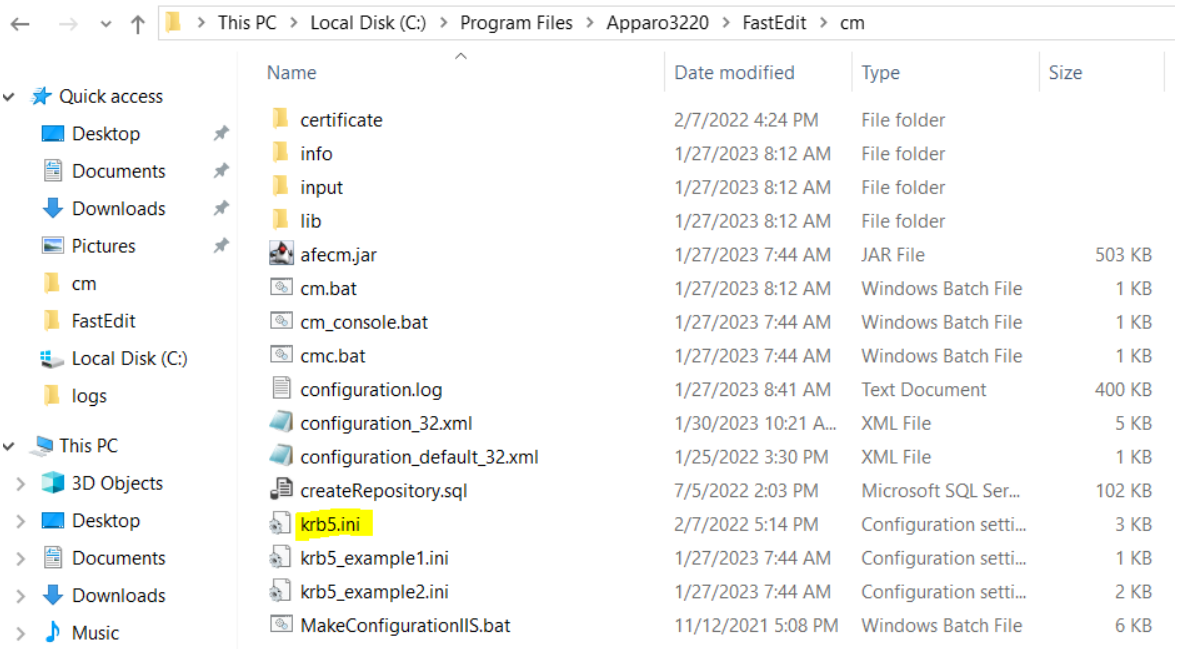
When the user logs in, the first hostname is used along with the first port and the first Base DN,
If the first server is offline or the user is not found there, the system will automatically try to connect to the next AD server.

4.5.3 Using SASL/Kerberos

For using Kerberos, you have to set the Authentication Method to SASL security protocol.

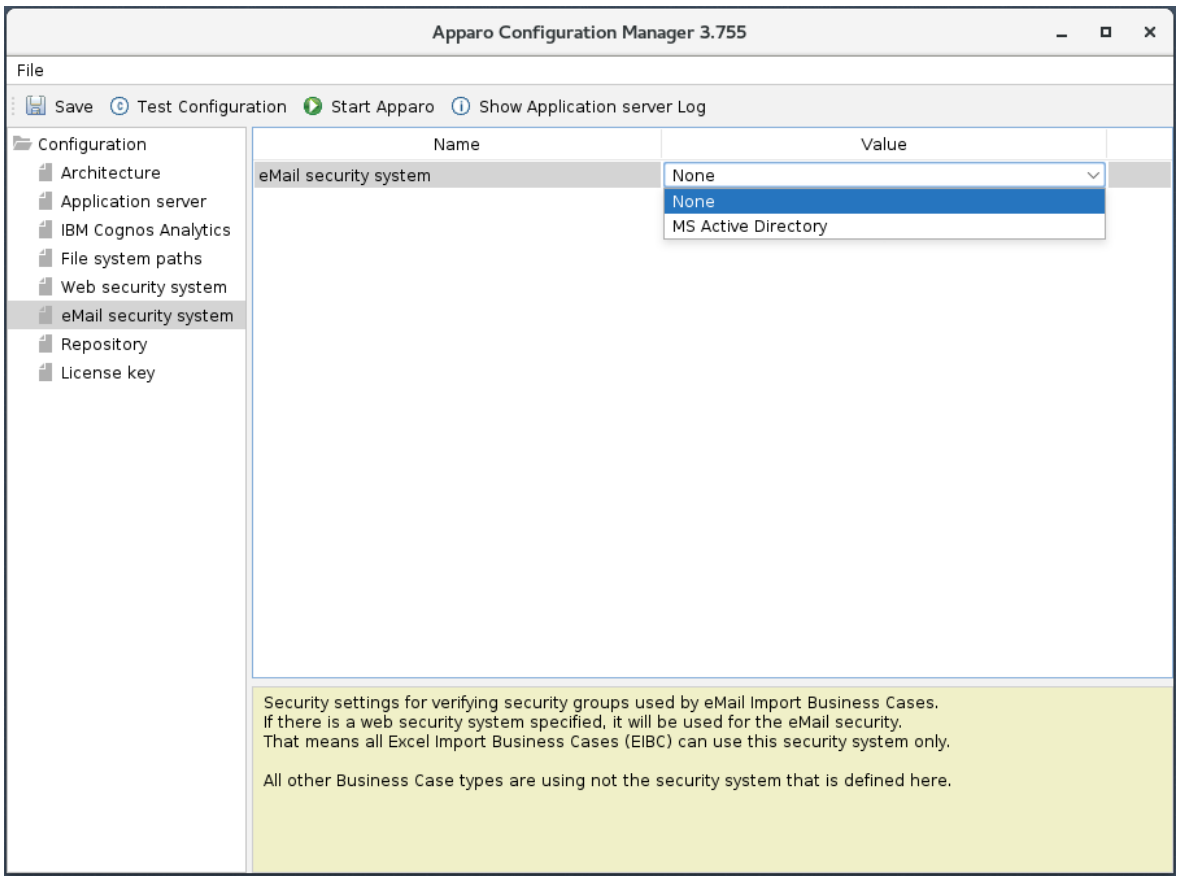


Important!
If you select SASL, you must also edit the krb5.ini text file.
You can find this file in the **cm directory,** including example files.



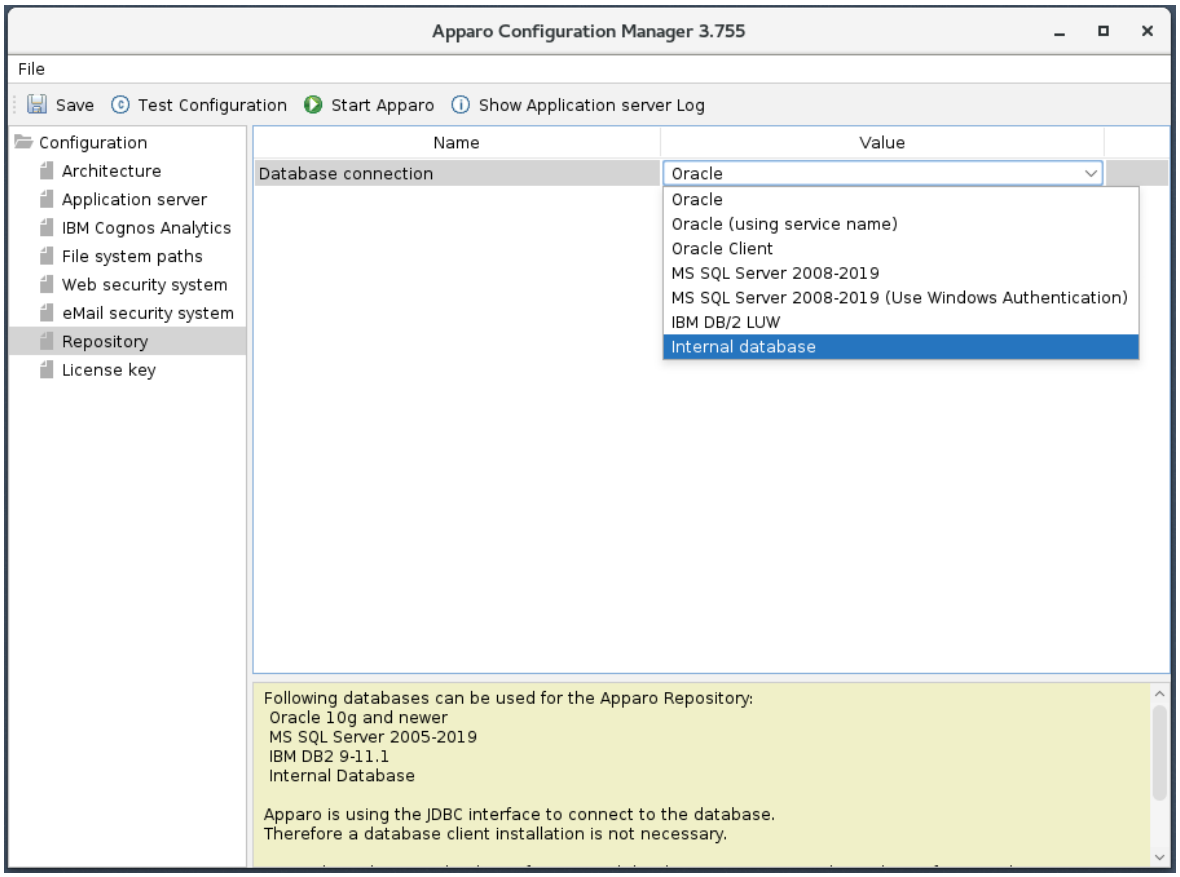
4.6 eMail security system

This security system in used by Business Cases of type “eMail Import Business Cases”



4.7 Repository

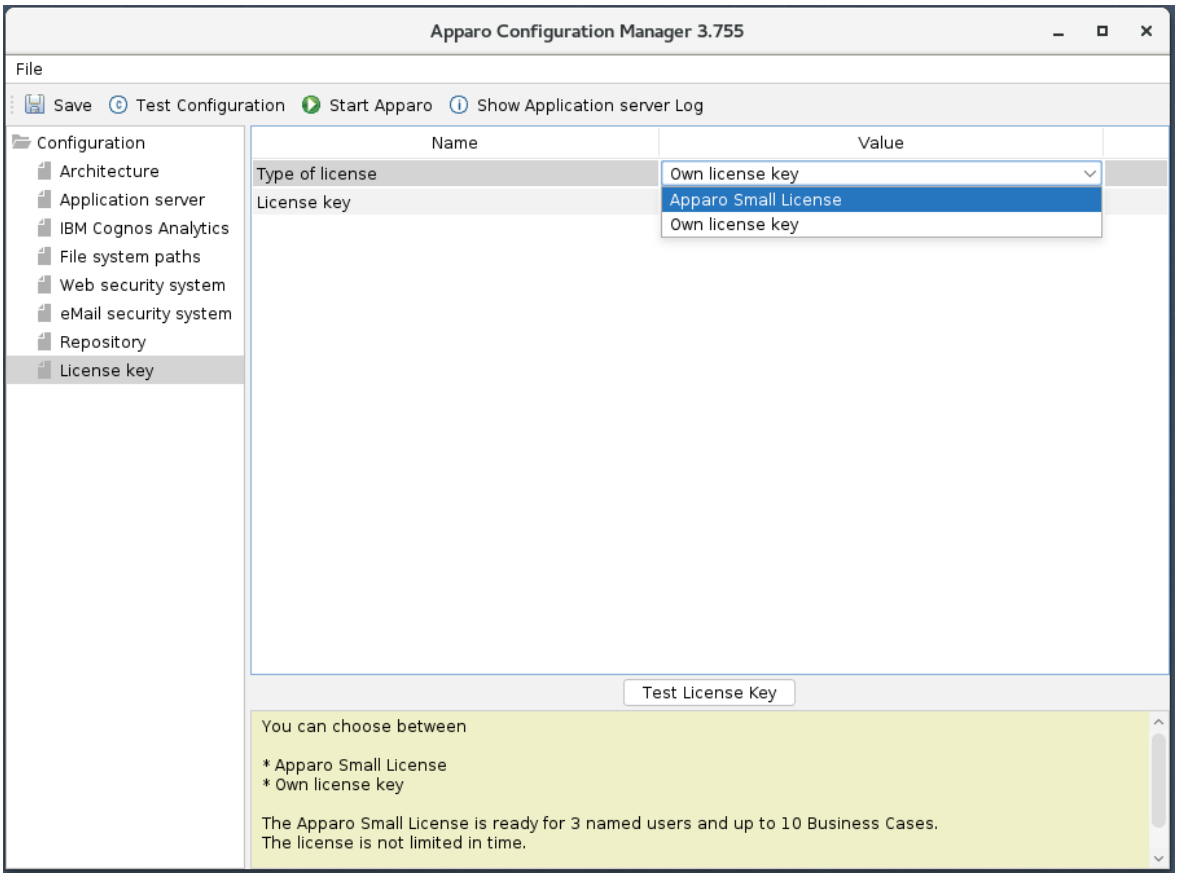
The database connection to the Apparo repository:



For a cluster environment the usage of “internal database” is not possible.

4.8 License key

In this section you can add & change the license key. This key is necessary to run Apparo Fast Edit.



To complete the installation, you can save and test the configuration.
If everything is OK, please start the server by clicking the button 'Start Apparo'.

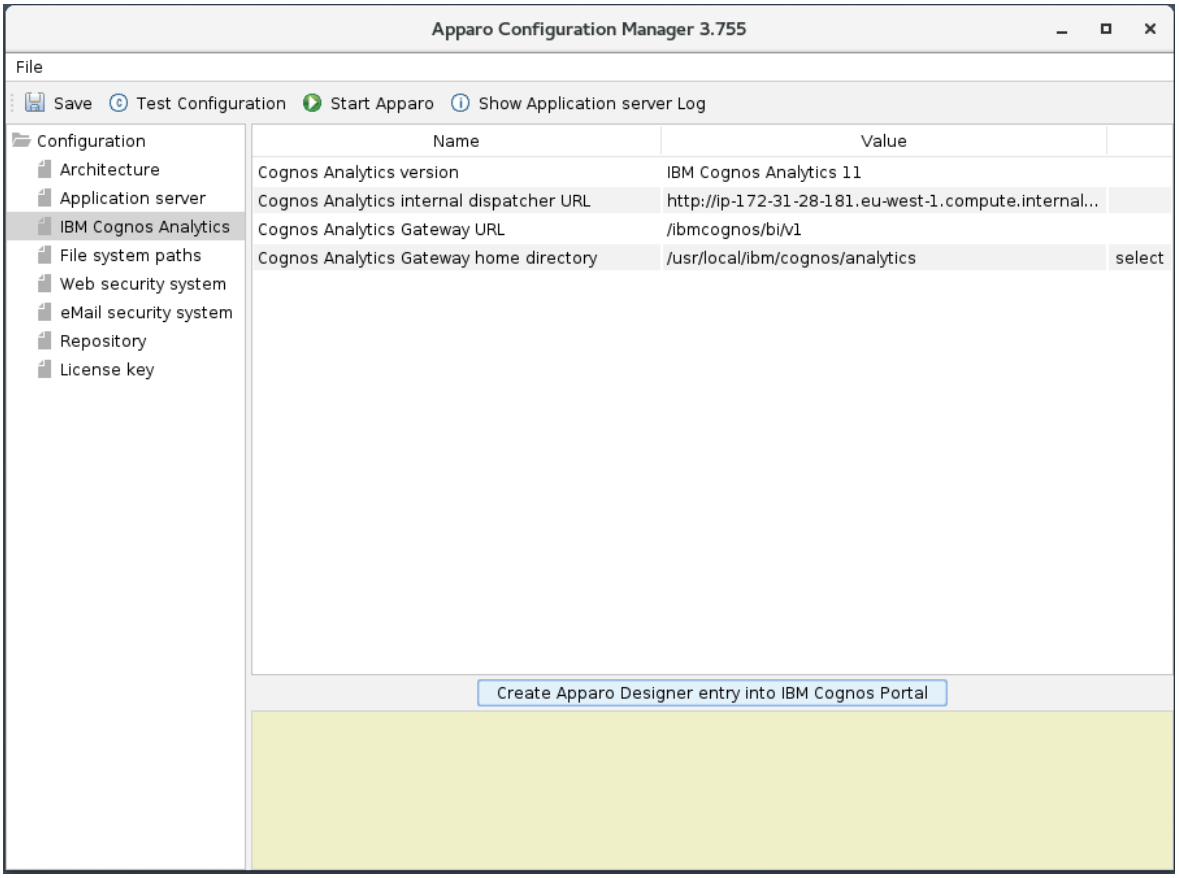
This button is deploying the configuration and starting the server.

5 Creating the Apparo Designer entry in IBM Cognos portal

1	**Preparation** • Analysing environment • Creation of a **database user** for the Apparo repository
2	**Installation of all Apparo application servers**
3	**Configuration of all Apparo application servers** Configuration using the Apparo Configuration Manager
4	**Creating the Apparo Designer entry in IBM Cognos portal**
5	**Installation of the Apparo gateway**
6	**Configuration of the Apparo gateway** Configuration the web server and the Apparo gateway using the Apparo Configuration Manager
7	**Installing clients**

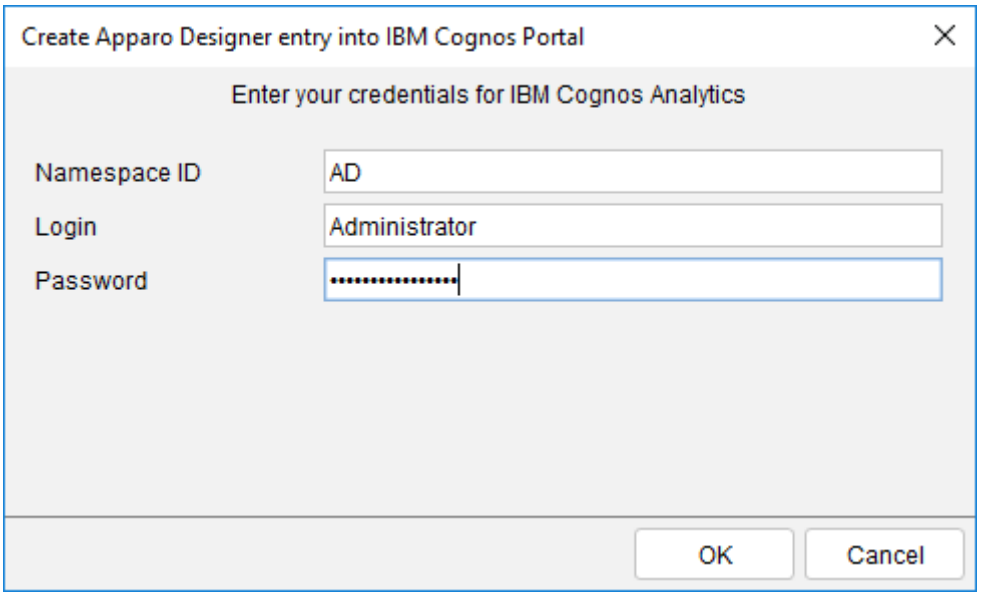
Possibility #1

The portal entry for starting the Apparo Designer can be created with the Configuration Manager:

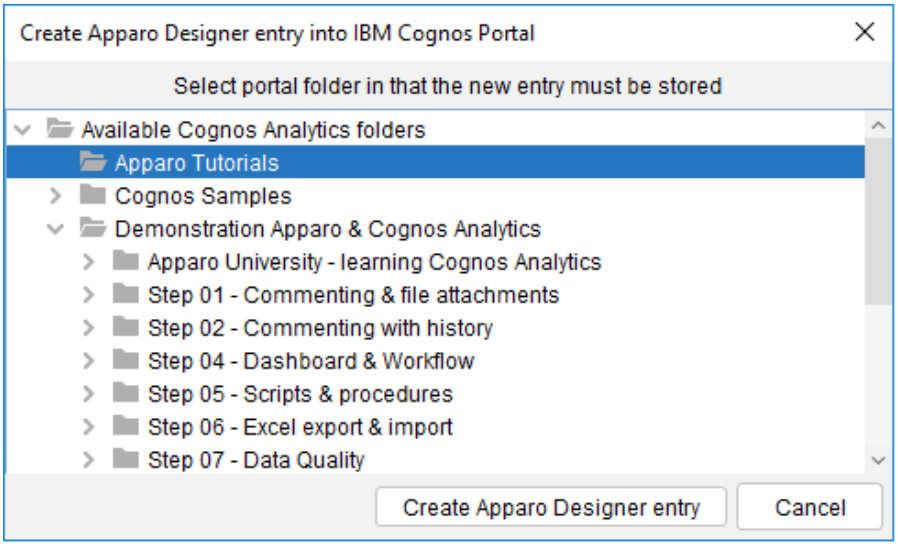


Click the Button 'Create Apparo Designer entry into IBM Cognos Portal

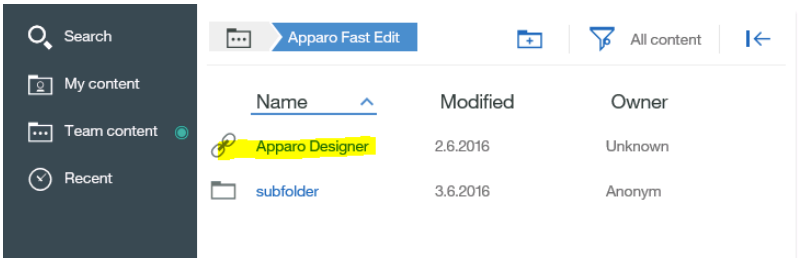
In the next step you will be asked to enter your credentials:



Select the desired target folder and click ‘Create Apparo Designer entry’



You can see this new entry in the Cognos portal:



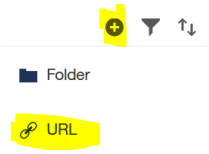
Possibility #2

Starting with CA 11.0.10 you can define hyperlinks manually:

Please copy

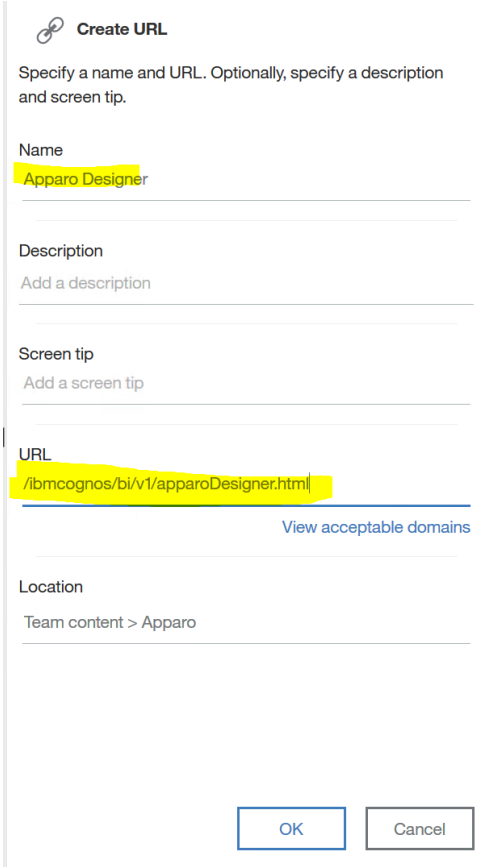
/ibmcognos/bi/v1/apparoDesigner.html

… and create a new entry in a team content folder, e.g. “Apparo”:



Press the + icon and select URL.

Enter name and URL:



Press OK button.

6 Installation of the Apparo gateway

1	**Preparation** • Analysing environment • Creation of a **database user** for the Apparo repository
2	**Installation of all Apparo application servers**
3	**Configuration of all Apparo application servers** Configuration using the Apparo Configuration Manager
4	**Creating the Apparo Designer entry in IBM Cognos portal**
5	**Installation of the Apparo gateway**
6	**Configuration of the Apparo gateway** Configuration the web server and the Apparo gateway using the Apparo Configuration Manager
7	**Installing clients**

Start the Installation by executing the file for a Linux 64 bit environment:

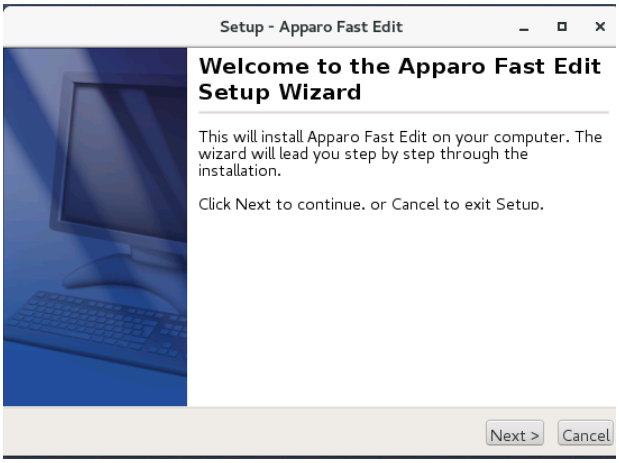
FastEdit3.2.2.x.zzz_linux_tomcat_cognos_analytics.sh

Or

FastEdit3.2.2.x.zzz_aix_tomcat_cognos_analytics.sh

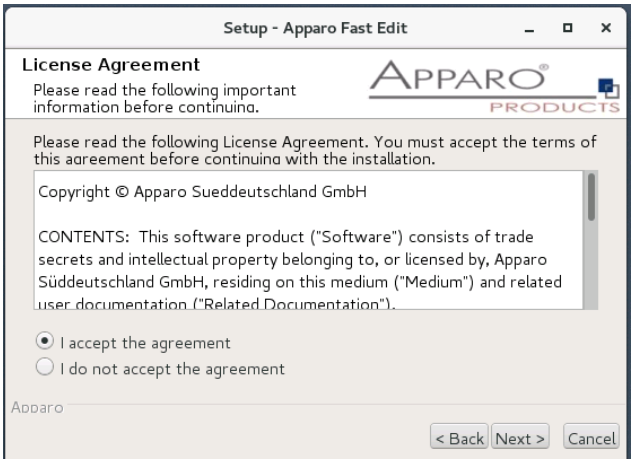
You must define the variable INSTALL4J_JAVA_HOME first.
It must have the path to the Java8/OpenJDK 8 installation.

Example: export INSTALL4J_JAVA_HOME=/etc/vm/jv8

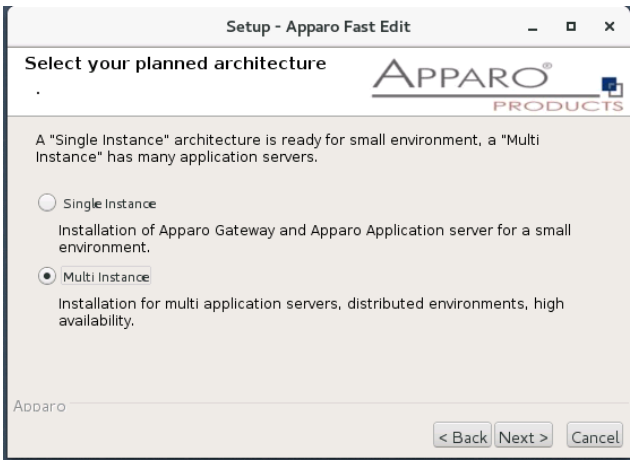


Confirm the beginning of the installation by clicking „**Next**“.

6.1 License agreement

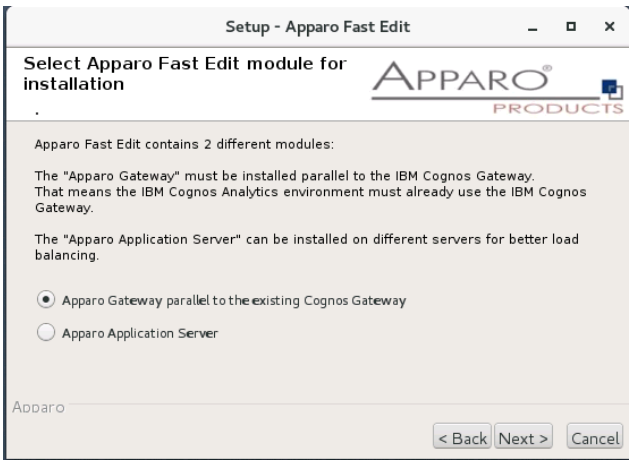


6.2 Architecture



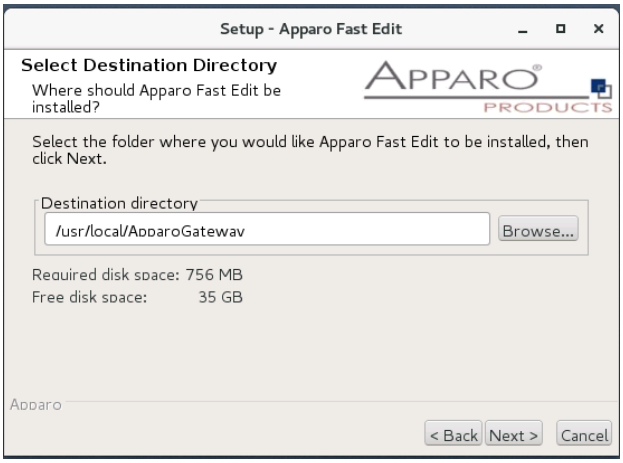
Select "**Multi Instance**" and choose „**Next**>".

Now it's the time to choose the entry for the **Apparo gateway**.



Select **Apparo gateway** and choose „**Next**>".

6.3 Defining the target file directory



Use for example:

/usr/local/ApparoGateway

Please define the path and choose „**Next**“.

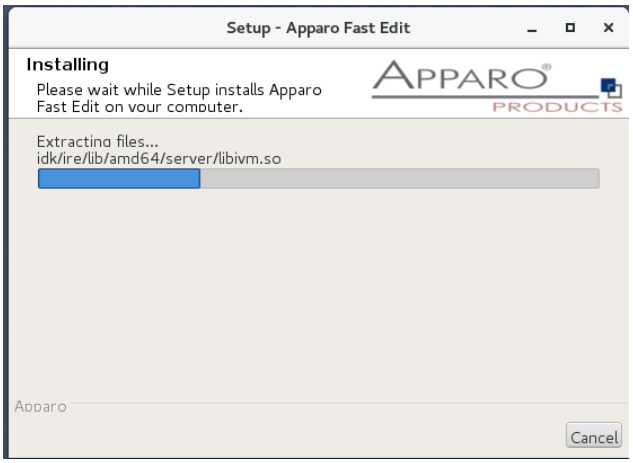
The configuration of Apparo Fast Edit is stored in file configuration.xml in file directory [APPARO_HOME]/FastEdit/cm .

Hint:

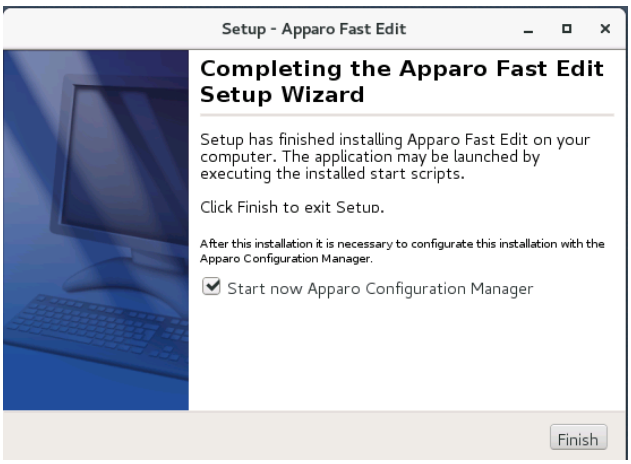
If you want to install the Apparo gateway parallel to the same server like an Apparo application server then you must use another target file directory, e.g. /usr/local/ApparoGateway

6.4 Carrying out the installation

Finally the installation of Apparo Fast Edit with the selected architecture will start.
After that this installation must be configured with the **Apparo Configuration Manager**.



6.5 Installation finish



Now it's time to **configure** the installation with the **Apparo Configuration Manager.**

Click „**Finish**" for completing the installation and to start the configuration.

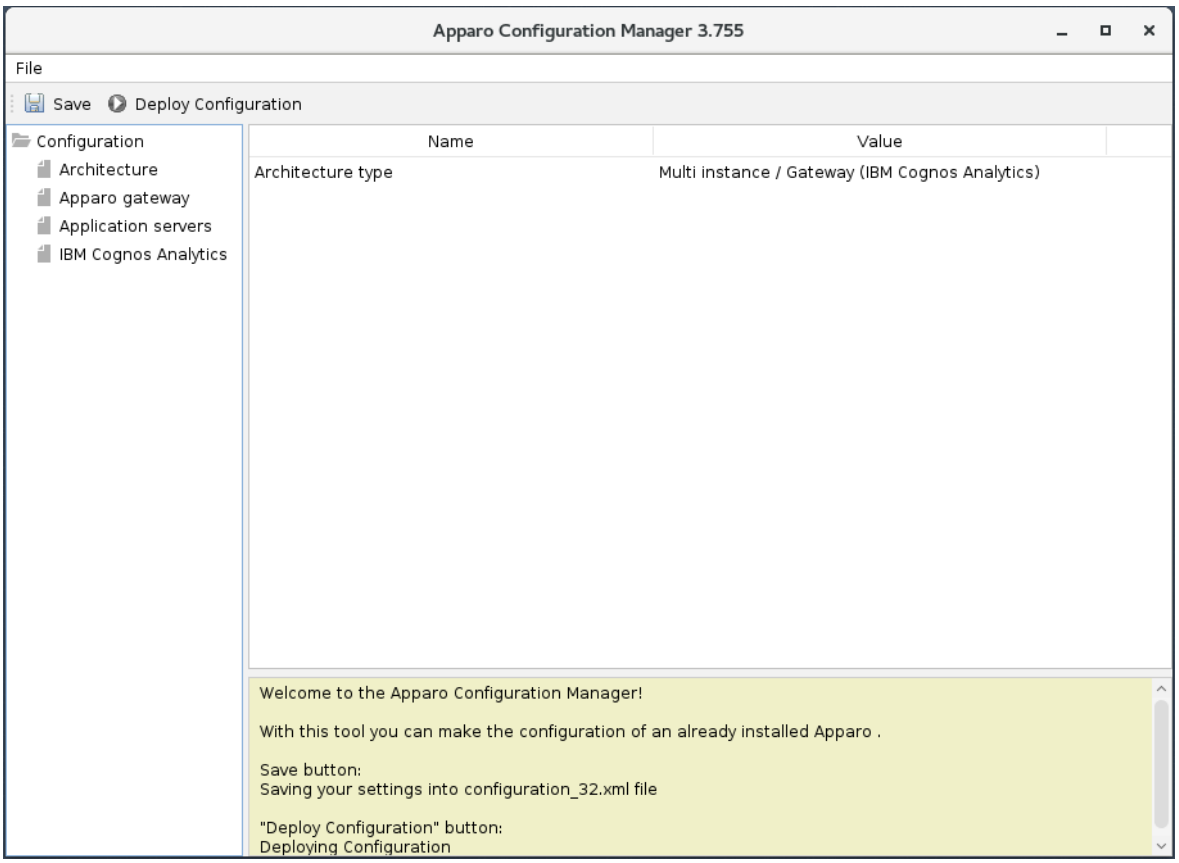
7 Configuration of the Apparo gateway

1	**Preparation** • Analysing environment • Creation of a **database user** for the Apparo repository
2	**Installation of all Apparo application servers**
3	**Configuration of all Apparo application servers** Configuration using the Apparo Configuration Manager
4	**Creating the Apparo Designer entry in IBM Cognos portal**
5	**Installation of the Apparo gateway**
6	**Configuration of the Apparo gateway** Configuration the web server and the Apparo gateway using the Apparo Configuration Manager
7	**Installing clients**

Important

Before starting of the Apparo configuration it is important that the configuration of all Apparo application servers with the Apparo Configuration Manager is successfully finished and the application servers are already running with pressing Button "Start Apparo".

With the **Apparo Configuration Manager** you are able to configure the already installed Apparo gateway.



The settings are grouped into chapters (left side).

For each setting you can read a helpful description text in the yellow box.

To do list:

1	**Define all settings.**

2	**Press the „Deploy Configuration“ button for deploying.**

3	**Press the „Save“ button for storing the settings.**

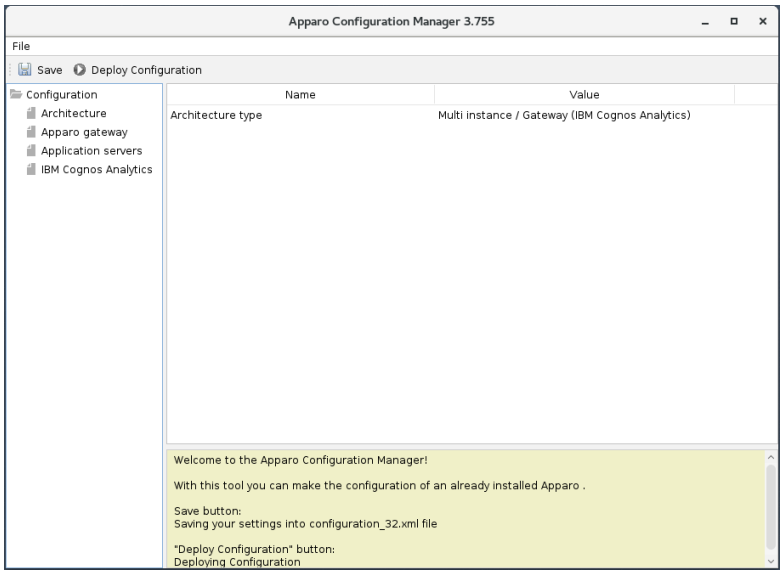
The configuration of Apparo Fast Edit is stored in file configuration.xml in file directory [APPARO_HOME]/FastEdit/cm .

If you plan a parallel/cluster system then it’s sometimes comfortable to copy this file into the target system.

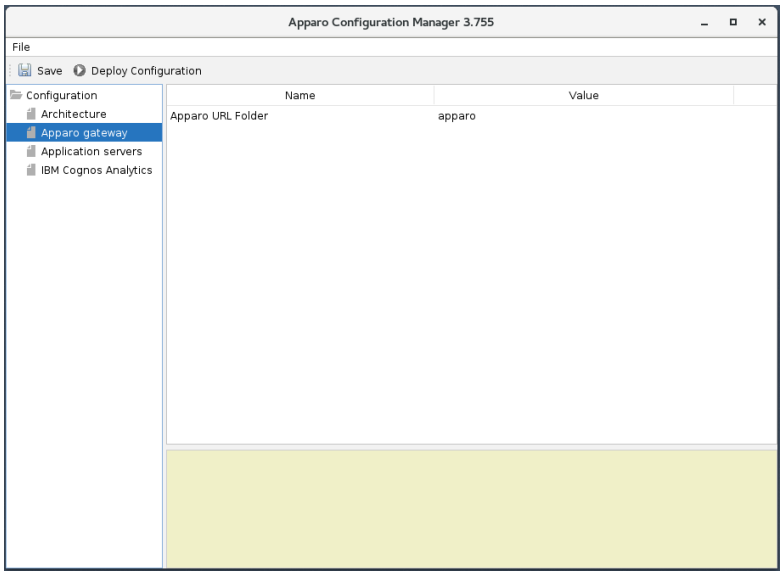
If you open the Apparo Configuration Manager then you will see the same configuration settings like of your source system and it’s possible to change it comfortable.

7.1 Architecture

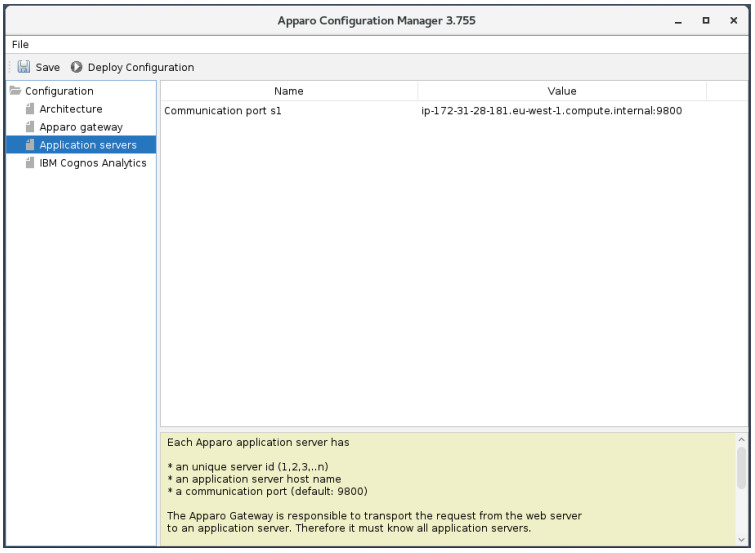
In this section of the Configuration Managers you can find the selected Apparo Fast Edit architecture. This architecture was defined at installation time and is not changeable now.



7.2 Apparo gateway



7.3 Application Server

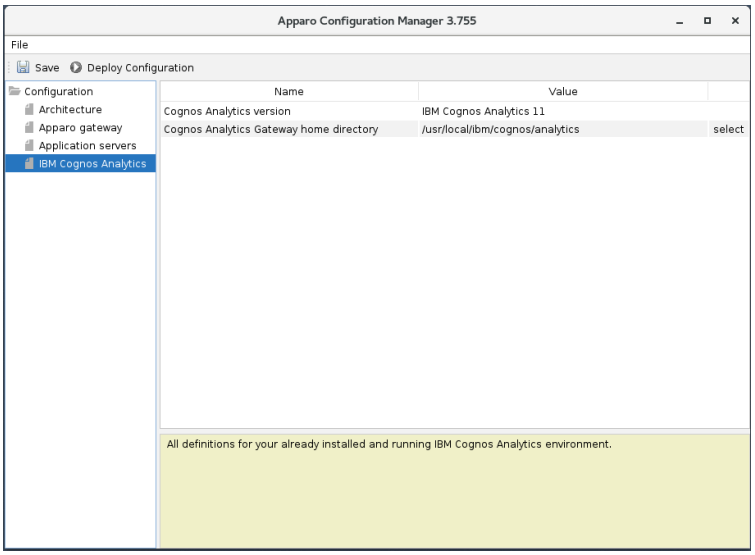


You can add an Apparo application server entry with pressing the right mouse button.

The setting **Server ID** is important in a multi-application environment.
Each application server has an unique ID starting with 1, then 2, 3, 4, …

This Server ID must be used in the **Apparo application settings too.**

7.4 IBM Cognos Analytics



The last step is to save and deploy the configuration.

7.5 Configuration of the Apache web server

This chapter is describing the configuration of Apache web server 2.4 and higher.

Hint: The configuration of Apparo using Apparo Configuration Manager must be already finished before you can continue.

Following installation steps are necessary:

Open the text file "**apache_cognos_analytics.txt**" in folder [APPARO_HOME]/FastEdit/cgi-bin

It has this or similar content:

```
[root@a2 cgi-bin]# cat apache_cognos_analytics.txt
# put these 4 rules into file cognos.conf at the beginning

RewriteRule /ibmcognos/bi/v1/apparoDesigner.html /ibmcognos/apparoDesigner.html [PT,L]
RewriteRule /ibmcognos/bi/v1/apparoBusinessCase.html /ibmcognos/apparoBusinessCase.html [PT,L]
RewriteRule /ibmcognos/bi/v1/apparoAjax.html /ibmcognos/apparoAjax.html [PT,L]
RewriteRule /ibmcognos/bi/v1/apparoPageModule.html /ibmcognos/apparoPageModule.html [PT,L]
RewriteRule /ibmcognos/bi/v1/apparoPageModule.html /ibmcognos/apparoTableModule.html [PT,L]


# put these into the file httpd.conf

<IfModule mod_proxy.c>
        ProxyPass /apparo balancer://ApparoFastEdit/apparo
        ProxyPassReverse /apparo balancer://ApparoFastEdit/apparo
        ProxyIOBufferSize 32768
        <Proxy balancer://ApparoFastEdit>
                BalancerMember ajp://a2:9800 route=s1 loadfactor=1
                ProxySet timeout=300
                ProxySet lbmethod=bytraffic
                ProxySet nofailover=On
                ProxySet stickysession=JSESSIONID|jsessionid
        </Proxy>
        <Location /balancer-manager>
                SetHandler balancer-manager
        </Location>
</IfModule>
[root@a2 cgi-bin]#
```

This file contains 2 parts:

1. Add the <IfModule mod… part at the end of the httpd.conf file like here and before the Cognos part.

```
# put these into the file httpd.conf

<IfModule mod_proxy.c>
        ProxyPass /apparo balancer://ApparoFastEdit/apparo
        ProxyPassReverse /apparo balancer://ApparoFastEdit/apparo
        ProxyIOBufferSize 65536
        <Proxy balancer://ApparoFastEdit>
                BalancerMember ajp://ip-172-31-16-246.eu-west-1.compute.internal:9800 route=s1 loadfactor=1
                ProxySet timeout=3000
                ProxySet lbmethod=bytraffic
                ProxySet nofailover=On
                ProxySet stickysession=JSESSIONID|jsessionid
        </Proxy>
        <Location /balancer-manager>
                SetHandler balancer-manager
        </Location>
</IfModule>
```

2. Add 5 rewrite rules manually into file httpd.conf – both must be placed directly before the include command for Cognos.

```
# put these rules into file cognos.conf at the beginning

RewriteEngine On
RewriteRule /ibmcognos/bi/v1/apparoDesigner.html /ibmcognos/apparoDesigner.html [PT,L]
RewriteRule /ibmcognos/bi/v1/apparoBusinessCase.html /ibmcognos/apparoBusinessCase.html [PT,L]
RewriteRule /ibmcognos/bi/v1/apparoAjax.html /ibmcognos/apparoAjax.html [PT,L]
RewriteRule /ibmcognos/bi/v1/apparoPageModule.html /ibmcognos/apparoPageModule.html [PT,L]
RewriteRule /ibmcognos/bi/v1/apparoTableModule.html /ibmcognos/apparoTableModule.html [PT,L]
```

Proxy settings

Enable following modules (they are normally already enabled):

```
LoadModule proxy_module modules/mod_proxy.so
LoadModule proxy_ajp_module modules/mod_proxy_ajp.so
LoadModule proxy_balancer_module modules/mod_proxy_balancer.so
LoadModule lbmethod_bytraffic_module modules/mod_lbmethod_bytraffic.so
```

Save the file httpd.conf and restart the web server.

Hint if using Red Hat Linux:

If you get an Apache error like:
[error] (13)Permission denied: proxy: AJP: attempt to connect to <servername:9800> failed

Please enter following command:

/usr/sbin/setsebool -P httpd_can_network_connect 1

Server Time out:

Please check that your Apache web server configuration has the setting

TimeOut 1800

Apparo Fast Edit need much time for importing/exporting/upgrading and Excel import.

Now the installation of the Apparo gateway for Apache web server is finished.

7.6 Configuration of the IHS (IBM Webserver)

Using IHS means using the IBM plugin.

Add 5 rewrite rules manually into file cognos.conf:

```
# put these rules into file cognos.conf at the beginning

RewriteEngine On
RewriteRule /ibmcognos/bi/v1/apparoDesigner.html /ibmcognos/apparoDesigner.html [PT,L]
RewriteRule /ibmcognos/bi/v1/apparoBusinessCase.html /ibmcognos/apparoBusinessCase.html [PT,L]
RewriteRule /ibmcognos/bi/v1/apparoAjax.html /ibmcognos/apparoAjax.html [PT,L]
RewriteRule /ibmcognos/bi/v1/apparoPageModule.html /ibmcognos/apparoPageModule.html [PT,L]
RewriteRule /ibmcognos/bi/v1/apparoTableModule.html /ibmcognos/apparoTableModule.html [PT,L]
```

You can use for that following text file that is stored in the **cgi-bin** file directory:

apache_cognos_analytics.txt	4/26/2021 9:13 AM
ihs_cognos_analytics.txt	5/4/2021 2:11 PM
IIS_fastedit.dll	5/4/2021 1:26 PM
IIS_fastedit.properties	4/26/2021 9:13 AM
uriworkermap.properties	4/26/2021 9:13 AM
workers.properties	4/26/2021 9:13 AM

Add following settings into the config file of the plugin: **plugin-cfg.xml**
After that please follow this list:

- Replace the server names with your host names
- Replace file paths
- Replace ports if necessary

```
<ServerCluster CloneSeparatorChange="false" GetDWLMTable="false"
IgnoreAffinityRequests="true" LoadBalance="Round Robin"
Name="Apparo_Cluster" PostBufferSize="0" PostSizeLimit="-1"
RemoveSpecialHeaders="true" RetryInterval="60" ServerIOTimeoutRetry="-1">


     <Server CloneID="2a66e1ff-ab90-4c77-a85e-a59d5001632e"
ConnectTimeout="5" ExtendedHandshake="false" LoadBalanceWeight="1"
MaxConnections="-1" Name="apparo_node_apparoserver"
ServerIOTimeout="900" WaitForContinue="false">

 <Transport Hostname="applicationserver-hostname" Port="18000" Protocol="http"/>
 <Transport Hostname="applicationserver-hostname" Port="443" Protocol="https">
<Property Name="keyring" Value="C:/Program Files/ibm/HTTPServer/apparo.kdb"/>
 <Property Name="stashfile" Value="C:/Program Files/ibm/HTTPServer/apparo.sth"/>
</Transport>
 </Server>
 <PrimaryServers>

 <Server Name="apparo_node_apparoserver"/>
     </PrimaryServers>
   </ServerCluster>
   <UriGroup Name="apparo_host_Apparo_Cluster_URIs">
     <Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/apparo*"/>
</UriGroup>


  <Route ServerCluster="Apparo_Cluster"

UriGroup="apparo_host_Apparo_Cluster_URIs" VirtualHostGroup="default_host"/>
```

Server Time out:

Please check that your IHS configuration has the setting

TimeOut 1800

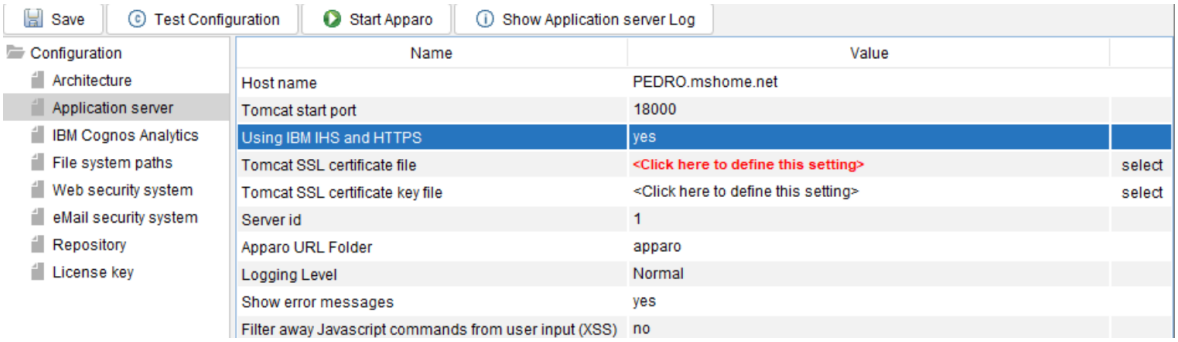
Apparo Fast Edit need much time for importing/exporting/upgrading and Excel import.

After the setting file is changed, please restart the IHS.

If using HTTPS:

Open the Configuration Manager for every used Apparo **application server** and select chapter "**Application server**":

Please change the setting "**Using IBM IHS and HTTPS**" to "**yes**" and select the files for the **SSL certificate** for the application server:



You must change the same setting in the Apparo Gateway settings too.

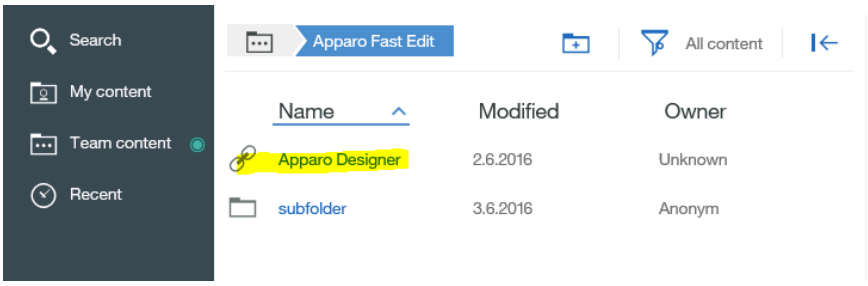
Now the installation of the Apparo gateway for IHS is finished.

8 Installing clients

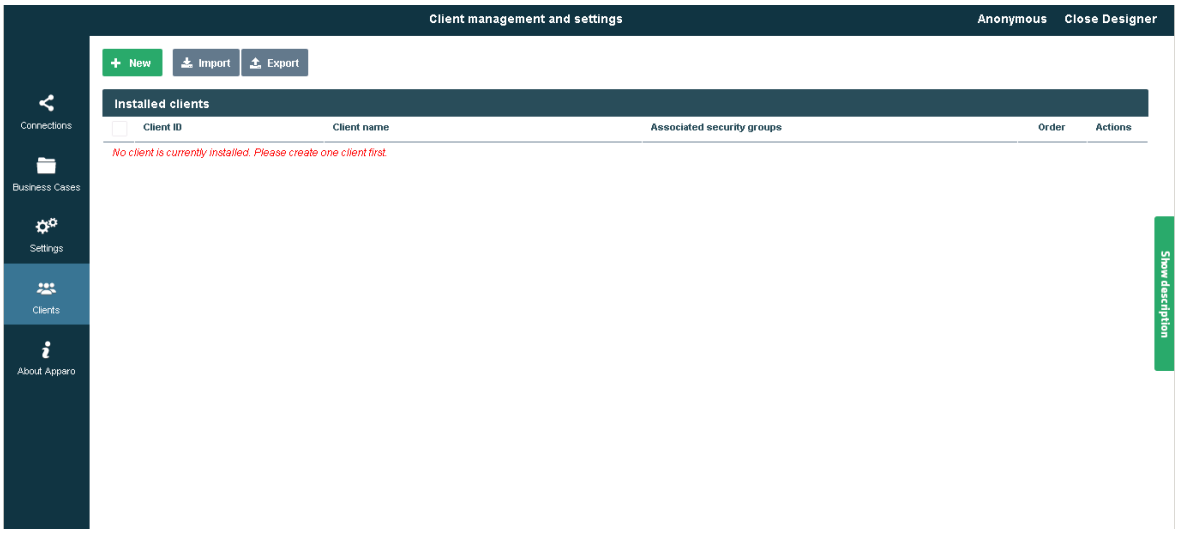
1	Preparation • Analysing environment • Creation of a database user for the Apparo repository
2	Installation of all Apparo application servers
3	Configuration of all Apparo application servers Configuration using the Apparo Configuration Manager
4	Creating the Apparo Designer entry in IBM Cognos portal
5	Installation of the Apparo gateway
6	Configuration of the Apparo gateway Configuration the web server and the Apparo gateway using the Apparo Configuration Manager
7	Installing clients

Now it is necessary to install the clients that will be used by users into Apparo Fast Edit.

Please open your IBM portal and select the entry “Apparo Designer”:



Now you should see:

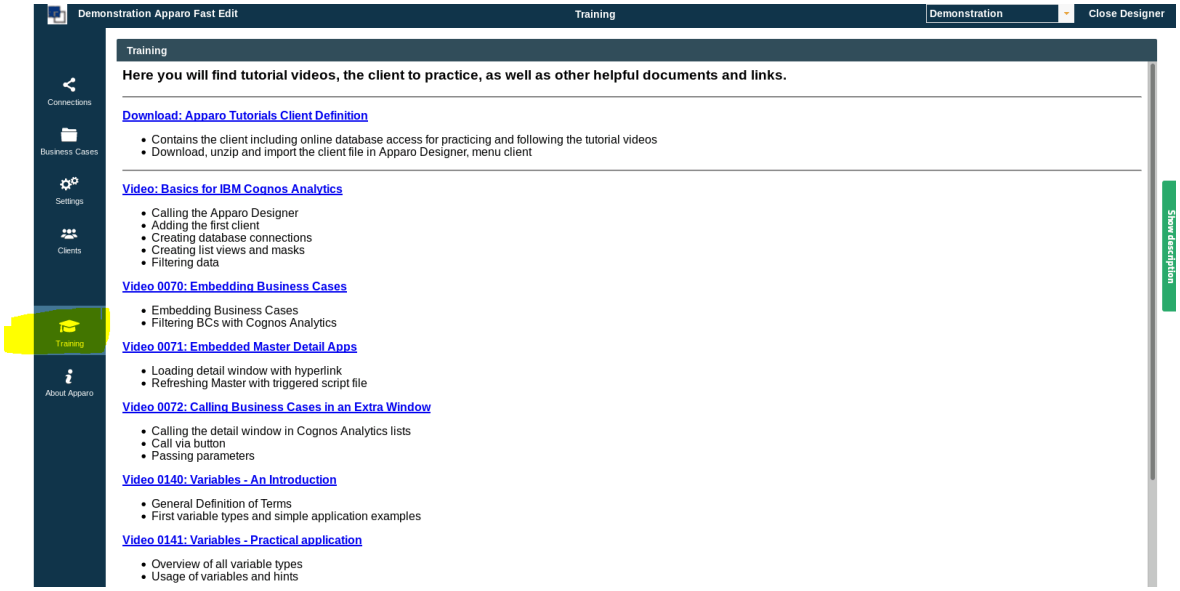


Please read now the document “**Configuration Guide**” for creating new/importing clients.

The installation & configuration on serverside is now successfully completed.

Please also read the following chapter 'Browser requirements'.

We recommend to open the "Training" Icon in the Apparo Designer.
This page contains helpful training movies.



9 Configuration Manager using command line

It is possible to automate the configuration process of the Configuration Manager.

The complete configuration is stored in the file **configuration_32.xml**

You can find this file in the [APPARO_HOME]/FastEdit/cm file directory.

Using this command line the configuration can be restored:

```
[APPARO_HOME]/FastEdit/cm/cmc.sh parameter1 parameter2 …
```

Parameter name	Functionality
-?,--help	Displays this help text
-deploy true/false	Configuration Manager will deploy the setting files
-start true/false	Start Apparo Fast Edit using -start true

10 Import/Export definitions using command line

You can export and import clients (including languages, folder, Business Cases, connections, and DB-messages), Business Cases, folder and connections using scripts.

10.1 Exporting definitions

The export program is stored in the file directory “export”: [APPARO_HOME]/FastEdit/export

Use script **afe-export.sh**

If you start the script without arguments then you can see the possible arguments:

-afeUrl <URL>	The Apparo Fast Edit URL address that will export the data. Example: http://localhost:18000/apparo. If you don't use this argument then the export is using the application server of this installation and its installation port.
-bcid <BUSINESS_CASE_ID>	ID of a Business Case you want to export.
-clientId <CLIENT_ID>	ID of a client you either want to export or an ID of a client the target object (Business Case, folder or connection) belongs to.
-dbc <CONN_NAME>	Name of a database connection you want to export.
-emailc <CONN_NAME>	Name of an email connection you want to export.
-f <FILEPATH>	Filename & path where to write the exported XML.
-folderPath <PATH>	Path of a folder you want to export. It should start with a slash character '/' which should also be used as a path separator.
-h	Displays this help text
-p <PASSWORD>	The password used to authenticate. This setting is necessary in a secured environment non BI environment.
-u <USERNAME>	The user used to authenticate. This setting is necessary in a secured non BI environment.

All export activities are logged server side in file directory logs, file afeexport.log

Sample: **afe-export.sh –f /etc/definition.xml -clientId DemoClient**

10.2 Importing definitions

The import program is stored in the file directory "import": [APPARO_HOME]/FastEdit/import

Use script **afe-import.sh (**If you start the script without arguments then you see the possible arguments)

-afeUrl <URL>	The Apparo Fast Edit URL address that will export the data. Example: http://localhost:18000/apparo. If you don't use this argument then the export is using the application server of this installation and its installation port.
-clientId <CLIENT_ID>	ID of a client that Business Cases, language definitions, database messages or connection definitions will be imported into.
-f <FILE>	The file that contains the client, Business Case, language definition, database messages or connection definitions.
-h	Displays this help text
-importSecurity <true|false>	Business cases and folders may contain a list of user groups defining who can access them. If this option is set to false, such security information will not be imported.
-overwriteBc <true|false>	If true then Business Cases from the import file will overwrite already existing Business Cases if their Business Case ID are the same. If false, Business Cases with such conflicting identifiers will be skipped.
-overwriteClient <true|false>	If true then clients from the import file will overwrite already existing clients with the same identifiers including client content like Business Cases. If false then clients with such conflicting identifiers will be skipped.
-overwriteClientButRescueExistingConnections <true|false>	If this parameter is used, then all connections of an existing client that is currently being re-imported (and overwritten if present) will be left unchanged. Default=false. New connections are created.
-overwriteConnection <true|false>	If true then database and email connections from the import file will overwrite already existing connections with the same names. If false then connections with such conflicting names will be skipped.
-p <PASSWORD>	The password used to authenticate. This setting is necessary in a secured environment.
-u <USERNAME>	The user used to authenticate. This setting is necessary in a secured environment.

All import activities are logged server side in file directory logs, file afeimport.log

Sample: **afe-import.sh –f /etc/definition.xml –u aferep –p aferep -clientId Sales**

11 Support

If you need support then please write an eMail to:

support@apparo.solutions