

Installation Guide

Apparo Fast Edit

For Linux

IBM Cognos Analytics

Version 3.3.0.0

Single Instance



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1 Prior to Installation

Installing Apparo Fast Edit can be done in 30 minutes if you prepare your environment.

Please be aware of the following points before starting installation:

1.1 Hardware requirements

- File system about 2 GB
- Main Memory about 4 GB

1.2 Supported operating systems

- IBM AIX/Red Hat
- SUSE Linux

1.3 Supported IBM Cognos versions

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

1.4 Supported web servers

- Apache Webserver 2.4
- IBM IHS

1.5 Supported Java VM

- OpenJDK 11 (Adoptium)
- Oracle Java 11

The Java VM must be already installed. It is not part of the Apparo installation.

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
- AWS
- Azure

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.

OpenJDK11 (Java 11) must be already installed.

1.8 Architecture

Possible Apparo Fast Edit architectures:

<p>1</p>	<p>Single instance, your existing Cognos environment is installed on <u>one computer only – that’s suitable for testing too.</u></p> <p>A „Single Instance“ is useful for small IBM Cognos Analytics environments or test systems.</p> <p>Using “Single Instance” the complete Apparo Fast Edit installation and the complete IBM Cognos Analytics installation is installed on one single server.</p>
<p>2</p>	<p>Multi instance, one or more Apparo gateways and one or more Apparo application servers are installed on one or more hosts.</p> <p>A „Multi instance“ is useful for better performance and high availability.</p> <p>If you want to use the multi instance architecture then please close this document and open the document “installation cluster”</p>

You can find an Apparo Fast Edit architecture document in the setup file too.

1.9 Overview installation steps

<p>1</p>	<p>Preparation</p> <ul style="list-style-type: none"> • Creation of a database user for the Apparo repository • Defining the Cognos portal folder for the Apparo Designer entry
<p>2</p>	<p>Installation</p> <p>Starting setup file for installation of the files</p>
<p>3</p>	<p>Configuration the Apparo application server</p> <p>Using Apparo Configuration Manager to configure the installation</p>
<p>4</p>	<p>Creating the Apparo Designer entry in Cognos portal</p> <p>Creating the start entry of Apparo Designer</p>
<p>5</p>	<p>Configuration the Apparo gateway</p> <p>Configuration of the Apache web server</p>
<p>6</p>	<p>Installing clients</p>

2 Preparation

<p>1</p>	<p>Preparation Creation of a database user for the Apparo repository</p>
<p>2</p>	<p>Installation Starting setup file for installation of the files</p>
<p>3</p>	<p>Configuration the Apparo application server Using Apparo Configuration Manager to configure the installation</p>
<p>4</p>	<p>Creating the Apparo Designer entry in Cognos portal Creating the start entry of Apparo Designer</p>
<p>5</p>	<p>Configuration the Apparo gateway Configuration of the Apache web server</p>
<p>6</p>	<p>Installing clients</p>

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
- MS Azure SQL Database
- Internal database (for test and development systems only)

If you don't want to use the internal database then this database user must be defined before starting the Apparo Fast Edit setup.

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

Essential grants:

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

2.2 Using Java 11 that is not the default JVM of Linux

If the Linux environment is not using Java 11 as default VM then the system variable PATH must be enhanced:

```
export PATH=/usr/lib/jvm/jdk11/bin:$PATH$
```

In this example the Java 11 VM is installed in /usr/lib/jvm/jdk11

3 Installation

1	<p>Preparation Creation of a database user for the Apparo repository</p>
2	<p>Installation Starting setup file for installation of the files</p>
3	<p>Configuration the Apparo application server Using Apparo Configuration Manager to configure the installation</p>
4	<p>Creating the Apparo Designer entry in Cognos portal Creating the start entry of Apparo Designer</p>
5	<p>Configuration the Apparo gateway Configuration of the Apache web server</p>
6	<p>Installing clients</p>

Start the Installation by executing the file

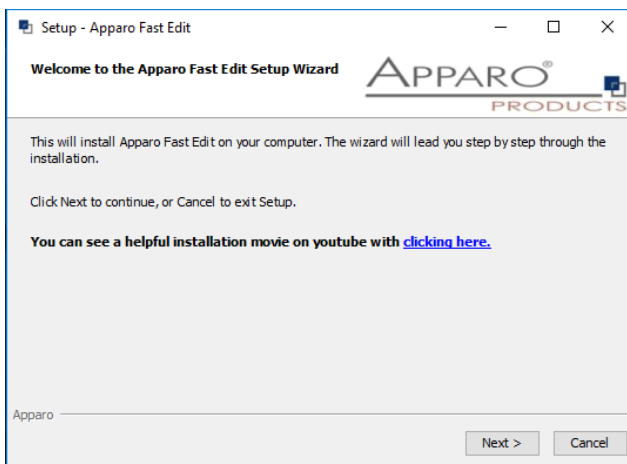
`./FastEdit3.3.0.0.yyy_linux_tomcat_cognos_analytics.sh`

Hints:

- `chmod 777 *.sh` is necessary too
- **You must define the variable `INSTALL4J_JAVA_HOME` first.** It must have the path to the OpenJDK 11 installation.

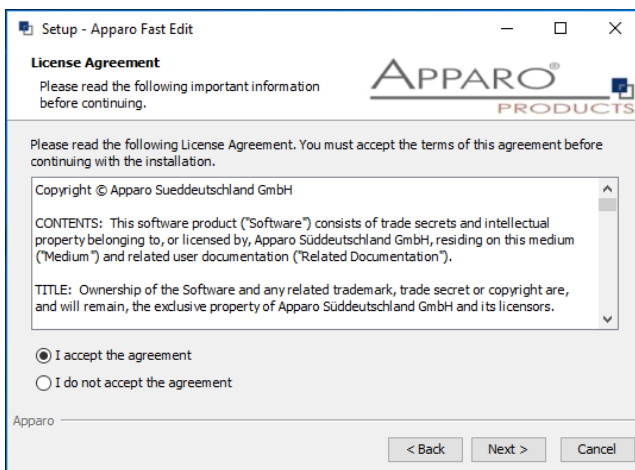
Example:

- `chmod 777 FastEdit*.sh`
- `export INSTALL4J_JAVA_HOME=/usr/lib/jvm/jdk11`



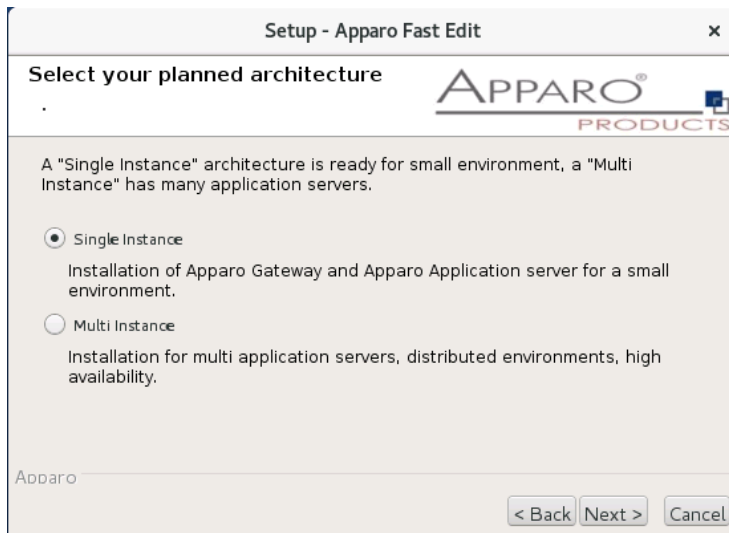
Confirm the beginning of the installation by clicking „Next“.

3.1 License agreement



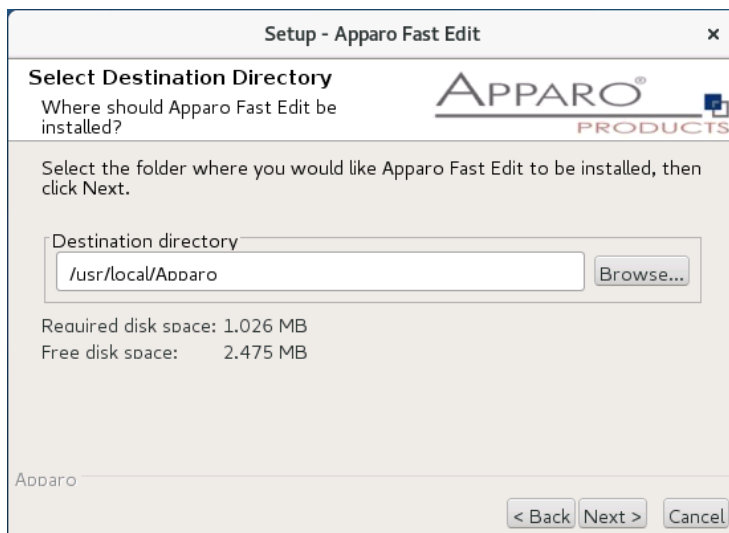
Read and confirm the license agreement by clicking „Next“.

3.2 Selecting the architecture



Please select “**Single Instance**” and choose „**Next>**“.

3.3 Defining the installation file directory

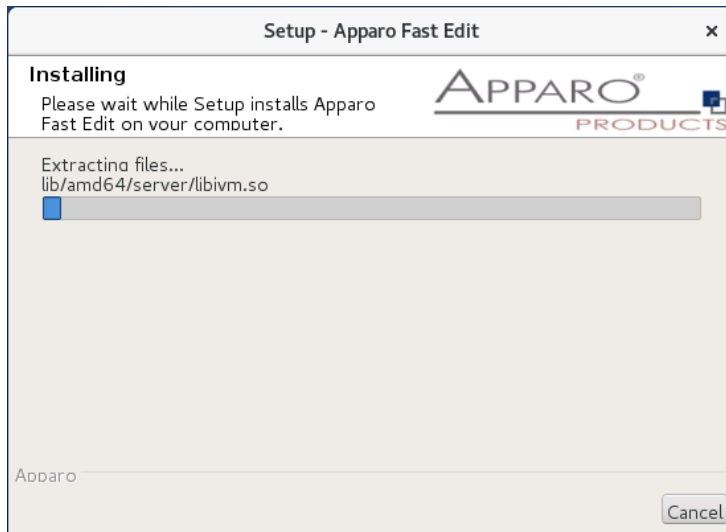


Typical folder: **`/usr/local/Apparo`**

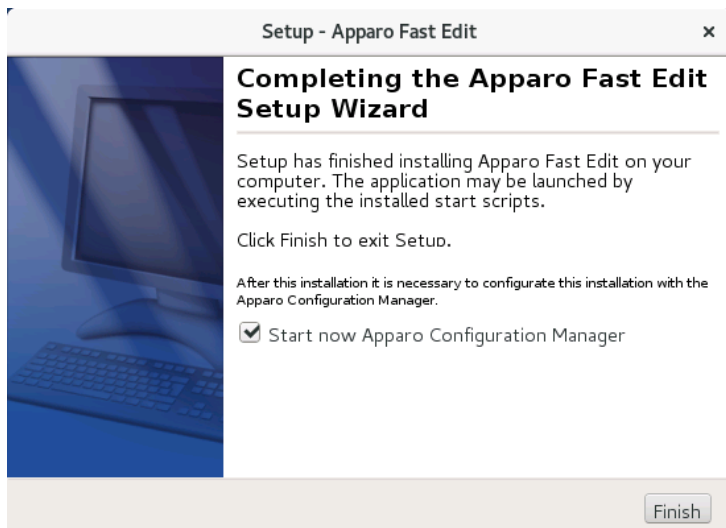
Please define folder and path and choose „**Next >**“.

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.

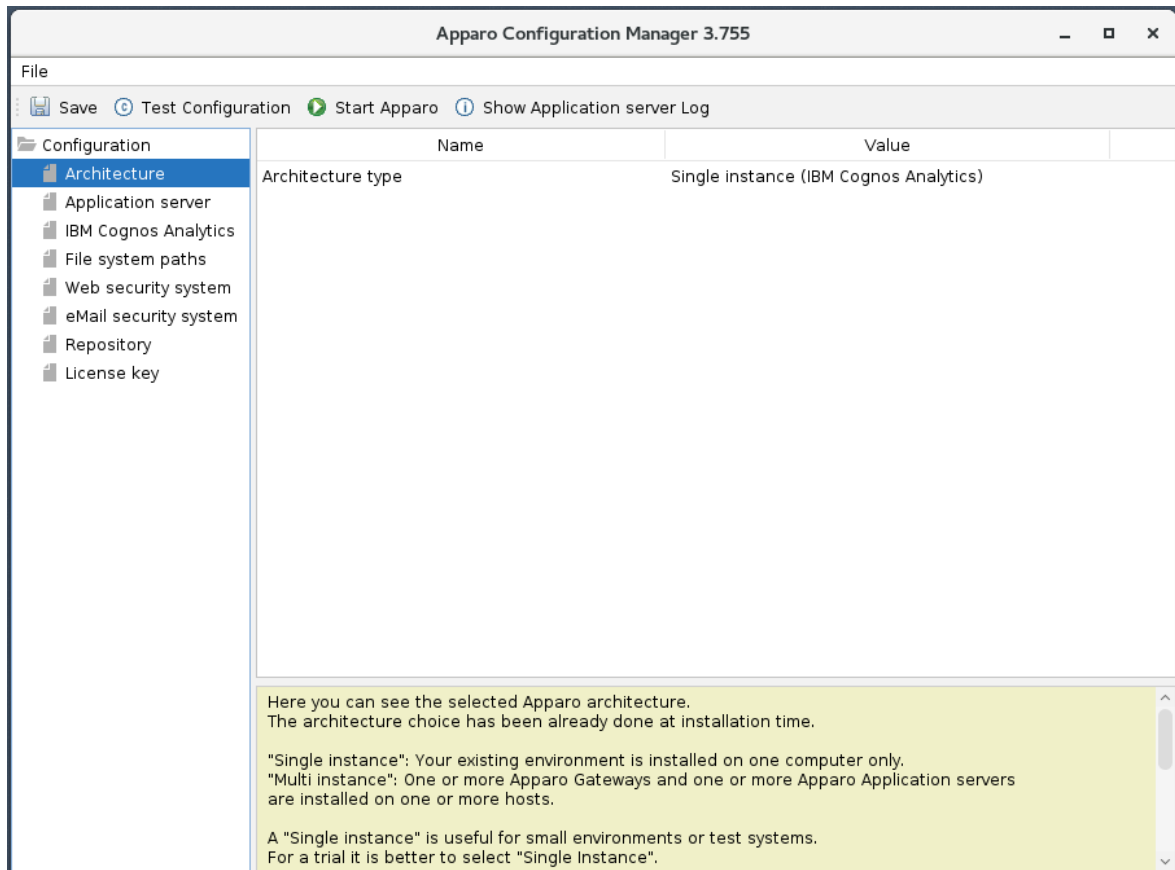
4 Configuration the Apparo application server

1	Preparation Creation of a database user for the Apparo repository
2	Installation Starting setup file for installation of the files
3	Configuration the Apparo application server Using Apparo Configuration Manager to configure the installation
4	Creating the Apparo Designer entry in Cognos portal Creating the start entry of Apparo Designer
5	Configuration the Apparo gateway Configuration of the Apache web server
6	Installing clients

With the **Apparo Configuration Manager** you can configure the already installed Apparo Fast Edit.

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 | <p>You can see the log file of the application server with pressing „<u>Show Log</u>“</p> <p>If the application server is running then you can see in the log:</p> <pre> +++++ + Apparo Fast Edit 3.3.0.0 (Build nnn) was successfully started at 07.11.2023 02:37:41 + +++++ </pre> |

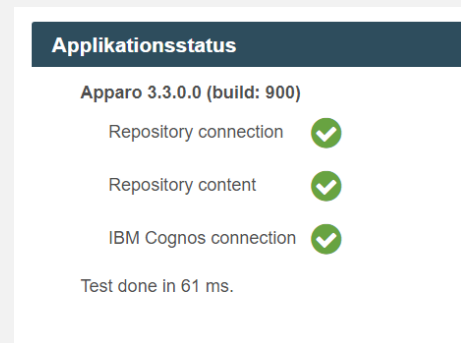
Test of an Apparo application servers without using an Apparo gateway:

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

Example: <http://localhost:18000/apparo/pages/apptest.xhtml>

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

Output:



The screenshot shows a web page titled "Applikationsstatus" with a dark header. Below the header, the text "Apparo 3.3.0.0 (build: 900)" is displayed. There are three rows of status information, each with a green checkmark icon to its right: "Repository connection", "Repository content", and "IBM Cognos connection". At the bottom of the status area, it says "Test done in 61 ms."

Applikationsstatus	
Apparo 3.3.0.0 (build: 900)	
Repository connection	✓
Repository content	✓
IBM Cognos connection	✓
Test done in 61 ms.	

4.1 Architecture

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

The screenshot shows the Apparo Configuration Manager 3.755 interface. The 'Architecture' section is selected in the left sidebar. The main area displays a table with the following data:

Name	Value
Architecture type	Single instance (IBM Cognos Analytics)

Below the table, a yellow informational box contains the following text:

Here you can see the selected Apparo architecture. The architecture choice has been already done at installation time.

"Single instance": Your existing environment is installed on one computer only.
 "Multi instance": One or more Apparo Gateways and one or more Apparo Application servers are installed on one or more hosts.

A "Single instance" is useful for small environments or test systems. For a trial it is better to select "Single Instance".

4.2 Application Server

Settings for the application server, e.g. memory.

Save Test Configuration Start Apparo Show Application server Log			
Configuration			
	Name	Value	
Architecture	Host name	ip-172-31-28-181.eu-west-1.compute.internal	
Application server	Tomcat start port	18000	
IBM Cognos Analytics	Tomcat connector port	9800	
File system paths	Apparo URL Folder	apparo	
Web security system	Show error messages	yes	
eMail security system	Filter away Javascript commands from user inp...	no	
Repository	Maximum main memory usage in MB	4096	
License key	Maximum threads	200	
	Session timeout in minutes	60	
	Runtime form timeout in minutes	30	
	Runtime ping period in seconds	24	
	Max count of missed runtime pings	5	
	Font-family of overriding font	<Click here to define this setting>	

If you want to use Excel import using XLSX then main memory should be set to 4096 or higher.

4.3 IBM Cognos Analytics

Settings for the already installed IBM Cognos Analytics environment:

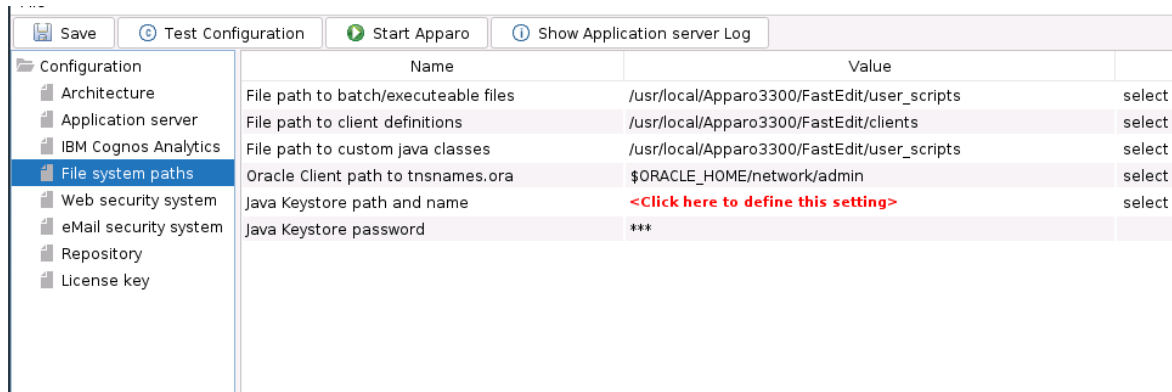
The screenshot shows the Apparo Configuration Manager 3.755 interface. The left sidebar lists configuration categories, with 'IBM Cognos Analytics' selected. The main area displays a table of configuration parameters for IBM Cognos Analytics 11.

Name	Value
Cognos Analytics version	IBM Cognos Analytics 11
Cognos Analytics internal dispatcher URL	http://ip-172-31-28-181.eu-west-1.compute.internal...
Cognos Analytics Gateway URL	/ibmcognos/bi/v1
Cognos Analytics Gateway home directory	/usr/local/ibm/cognos/analytics <input type="text" value="select"/>

Below the table, there is a button labeled 'Create Apparo Designer entry into IBM Cognos Portal' and a yellow highlighted area containing the text: 'All definitions for your already installed and running IBM 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.



Name	Value	
File path to batch/executeable files	/usr/local/Apparo3300/FastEdit/user_scripts	select
File path to client definitions	/usr/local/Apparo3300/FastEdit/clients	select
File path to custom java classes	/usr/local/Apparo3300/FastEdit/user_scripts	select
Oracle Client path to tnsnames.ora	\$ORACLE_HOME/network/admin	select
Java Keystore path and name	<Click here to define this setting>	select
Java Keystore password	***	

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:

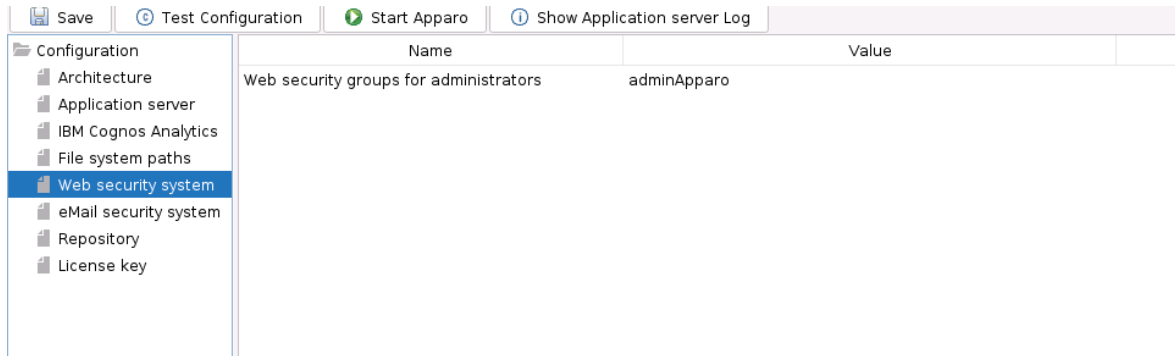
```
sudo keytool -importcert -file filename.cer -alias randomaliasname -keystore  
$JAVA_HOME/lib/security/cacerts -storepass changeit
```

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



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**.

4.6 eMail security system

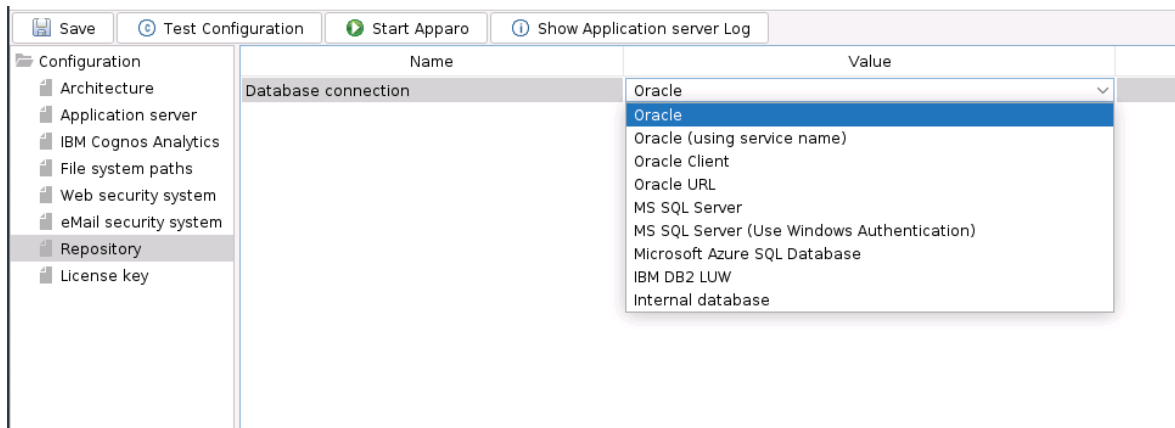
The Excel Import Business Case is running outside of the Cognos security and need therefore an own security system.

The screenshot shows the Apparo Configuration Manager 3.755 interface. The left sidebar contains a tree view with the following items: Configuration, Architecture, Application server, IBM Cognos Analytics, File system paths, Web security system, eMail security system (selected), Repository, and License key. The main area displays a table with two columns: Name and Value. The table contains one row: eMail security system with a dropdown menu showing 'None' (selected), 'None', and 'MS Active Directory'. Below the table, there is a yellow box containing the following text:

Security settings for verifying security groups used by eMail Import Business Cases.
If there is a web security system specified, it will be used for the eMail security.
That means all Excel Import Business Cases (EIBC) can use this security system only.
All other Business Case types are using not the security system that is defined here.

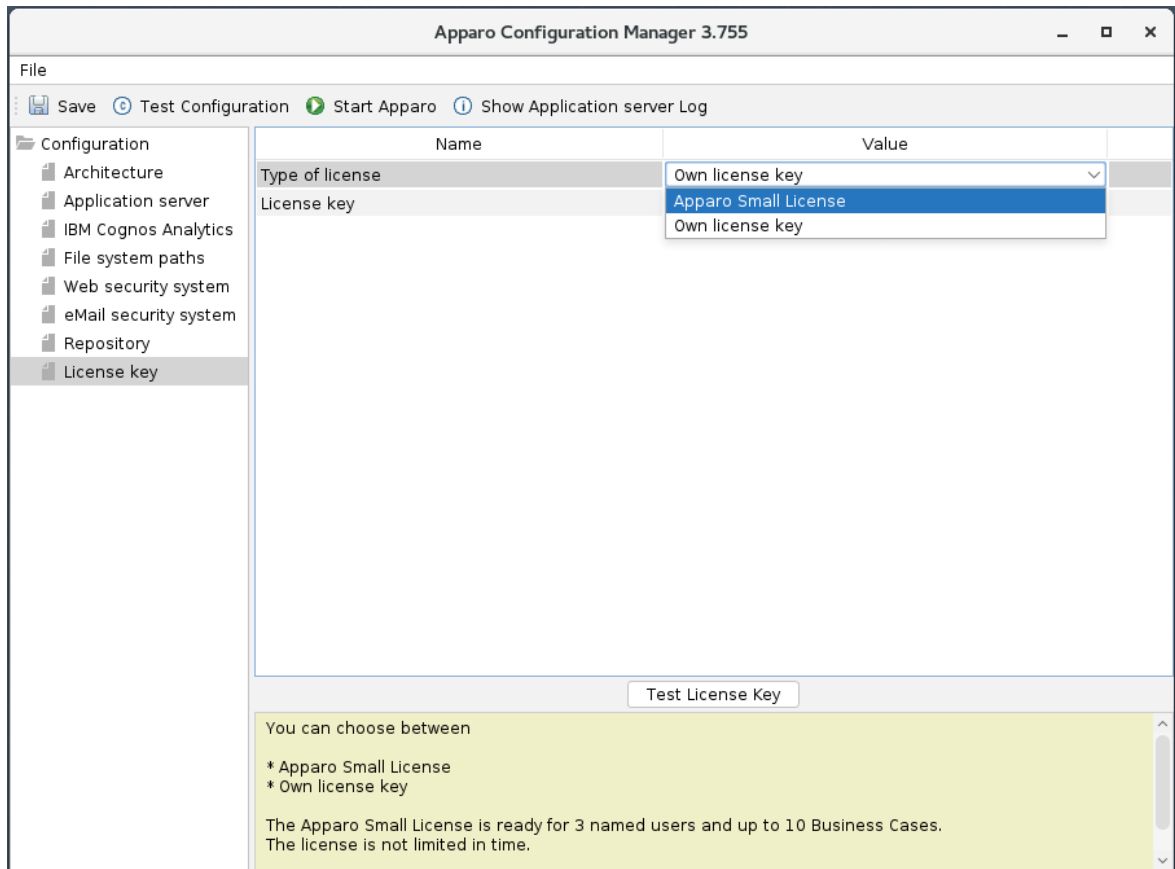
4.7 Repository

The database connection to the Apparo repository:



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'.**

Using this button, it is deploying the configuration and starting the server.

After starting you can press the button “**Show Application server Log**”:

```

2023-03-29T07:55:45,218 [openMailImportScheduler] DEBUG OpenMailImportManager - OpenMailImportScheduler thread started.
2023-03-29T07:55:45,300 [emailSendingBatchThread] DEBUG EmailSendingService - emailSendingBatchThread started.
2023-03-29T07:55:45,300 [emailSendingBatchThread] DEBUG EmailSendingService - No batches to execute, sleeping.
2023-03-29T07:55:45,301 [main] DEBUG PersistentObjectDaoJpa - Looking for objects of type [Client], init=false
2023-03-29T07:55:45,307 [main] DEBUG PersistentObjectDaoJpa - Found [0] objects of type [Client]
2023-03-29T07:55:45,359 [main] DEBUG EmailImportScheduler - Scheduling an email monitoring task with period of 300 seconds.
2023-03-29T07:55:45,955 [main] INFO ServerImpl - Setting the server's publish address to be /
2023-03-29T07:55:46,130 [main] INFO ApplicationListener - Setting system property: java.awt.headless=true
2023-03-29T07:55:46,131 [main] INFO ApplicationListener - Setting system property: oracle.net.tns_admin=$ORACLE_HOME/network/admin
2023-03-29T07:55:46,131 [main] INFO ApplicationListener - Keystore path set to:
2023-03-29T07:55:46,207 [main] INFO CognosDriver11 - CognosDriver11 was registered to DriverManager
2023-03-29T07:55:46,419 [main] INFO QlikSenseDriver - Qlik Sense Driver was registered to DriverManager
2023-03-29T07:55:46,451 [main] INFO QlikSenseSaaSDriver - Qlik Sense SaaS Driver was registered to DriverManager
2023-03-29T07:55:46,624 [main] INFO QlikviewDriver - QlikviewDriver was registered to DriverManager
2023-03-29T07:55:46,636 [main] INFO ApplicationListener -
+ + + + +
+ Apparo 3.3.0.0 (Build 900-SNAPSHOT) for IBM Cognos Analytics 11 was successfully started at Mar 29, 2023, 7:55:46 AM +
+ + + + +
2023-03-29T07:56:16,644 [AppTest-Thread] INFO ConnectionUtils - Calling app test...
2023-03-29T07:56:17,836 [http-nio-18000-exec-1] INFO CognosDriver11 - Creating cognos connection to [http://ip-172-31-28-181.eu-west-1
2023-03-29T07:56:17,842 [http-nio-18000-exec-1] INFO CognosConnection11 - Connect to Cognos on URL: http://ip-172-31-28-181.eu-west-1
2023-03-29T07:56:19,393 [http-nio-18000-exec-1] INFO CognosConnection11 - ServiceLocator created. Preparing the Content Manager Ser
2023-03-29T07:56:20,175 [http-nio-18000-exec-1] INFO CognosConnection11 - Service prepared.
2023-03-29T07:56:22,473 [AppTest-Thread] INFO ConnectionUtils - App test finished.

```

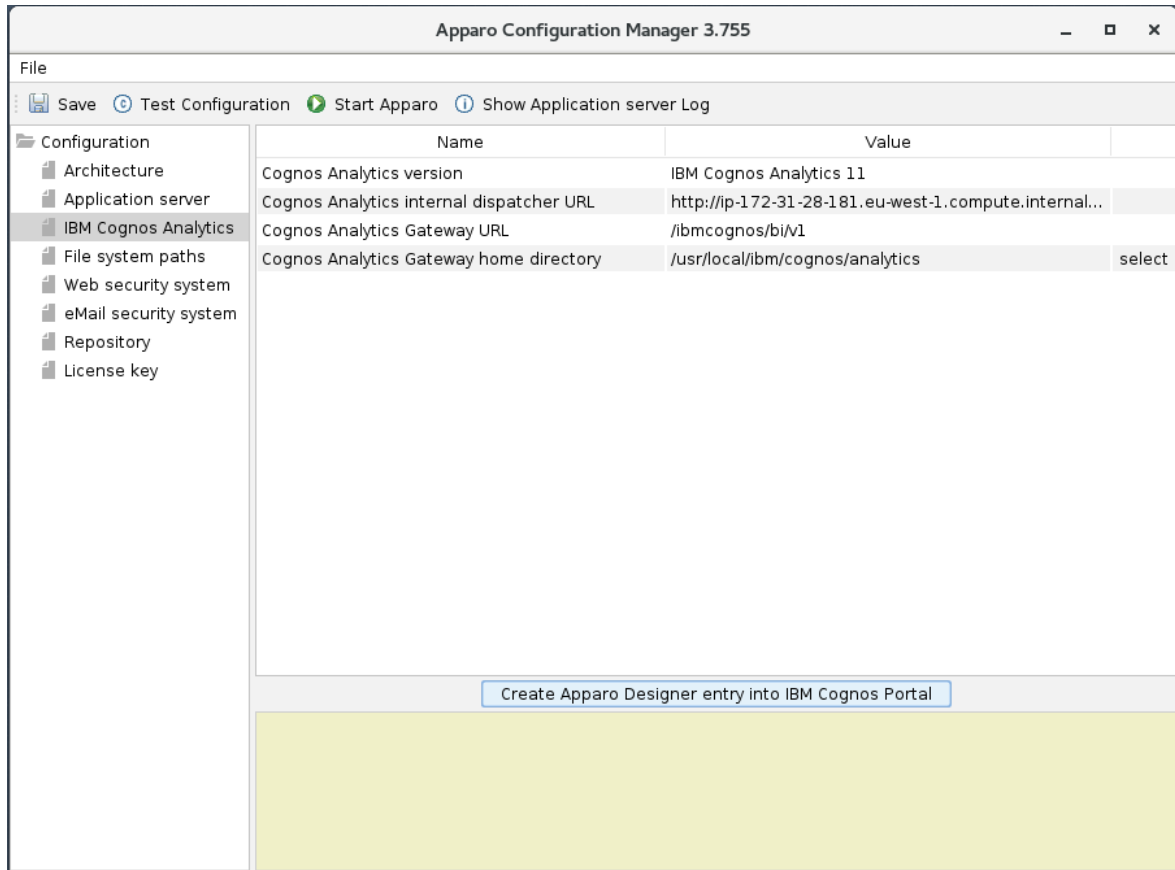
The application has started fine if you see a message above that is yellow marked.

5 Creating the Apparo Designer entry in IBM Cognos portal

1	<p>Preparation Creation of a database user for the Apparo repository</p>
2	<p>Installation Starting setup file for installation of the files</p>
3	<p>Configuration the Apparo application server Using Apparo Configuration Manager to configure the installation</p>
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Possibility #1

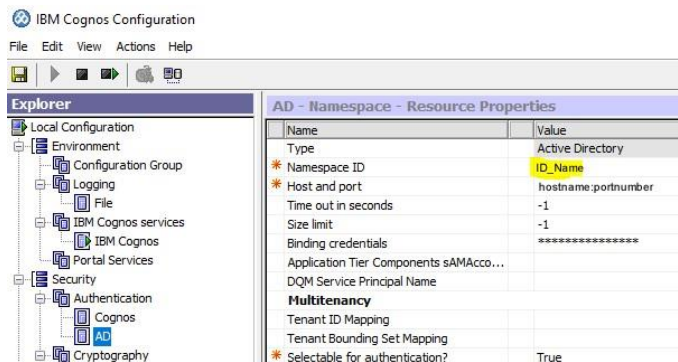
The portal entry for starting the Apparo Designer can be created with the Configuration Manager:



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

In the next step you will be asked to enter your Cognos credentials.
This credential will be not stored somewhere and will be just used for login once.

Please use the Namespace ID. You can find this value in the Cognos Configuration.



Create Apparo Designer entry into IBM Cognos Portal

Enter your credentials for IBM Cognos Analytics

Namespace ID: AD

Login: Administrator

Password:

OK Cancel

Select the desired Cognos target folder and click 'Create Apparo Designer entry'.

Create Apparo Designer entry into IBM Cognos Portal

Select portal folder in that the new entry must be stored

- Available Cognos Analytics folders
 - Apparo Tutorials
 - Cognos Samples
 - Demonstration Apparo & Cognos Analytics
 - Apparo University - learning Cognos Analytics
 - Step 01 - Commenting & file attachments
 - Step 02 - Commenting with history
 - Step 04 - Dashboard & Workflow
 - Step 05 - Scripts & procedures
 - Step 06 - Excel export & import
 - Step 07 - Data Quality

Create Apparo Designer entry Cancel

You can see this new entry in the Cognos portal:

Name	Modified	Owner
Apparo Designer	2.6.2016	Unknown
subfolder	3.6.2016	Anonym

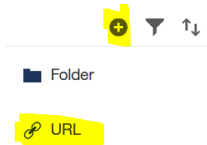
Possibility #2

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:

 **Create URL**

Specify a name and URL. Optionally, specify a description and screen tip.

Name
Apparo Designer

Description
Add a description

Screen tip
Add a screen tip

URL
/ibmcognos/bi/v1/apparoDesigner.html

[View acceptable domains](#)

Location
Team content > Apparo

Press OK button.

6 Configuration of the Apparo gateway

1	<p>Preparation Creation of a database user for the Apparo repository</p>
2	<p>Installation Starting setup file for installation of the files</p>
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6.1 Configuration of the Apache 2.4 Webserver

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

Hint: The configuration of Apparo Fast Edit 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:

```
# 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]

# 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=0n
        ProxySet stickysession=JSESSIONID|jsessionid
    </Proxy>
    <Location /balancer-manager>
        SetHandler balancer-manager
    </Location>
</IfModule>
```

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=0n
        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.

6.2 Configuration of the IHS (IBM Webserver)

IHS is not supporting the AJP protocol. Therefore the web server must work as a reverse proxy.

Enable following module (they are normally already enabled):

```
LoadModule proxy_module modules/mod_proxy.so
```

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]
```

Add following settings into the config file:
Replace localhost with the internal server name.

```
Header add Set-Cookie "ROUTEID=.%{BALANCER_WORKER_ROUTE}e; path=/" env=BALANCER_ROUTE_CHANGED

ProxyPreserveHost On

<Proxy "balancer://apparocluster">

    BalancerMember "http://localhost:18000/apparo" route=s1
    BalancerMember "http://localhost:18000/apparo" route=s2

    ProxySet stickysession=ROUTEID
    ProxySet timeout=3000
    ProxySet nofailover=On
</Proxy>

ProxyPass "/apparo" "balancer://apparocluster"
ProxyPassReverse "/apparo" "balancer://apparocluster"
```

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.

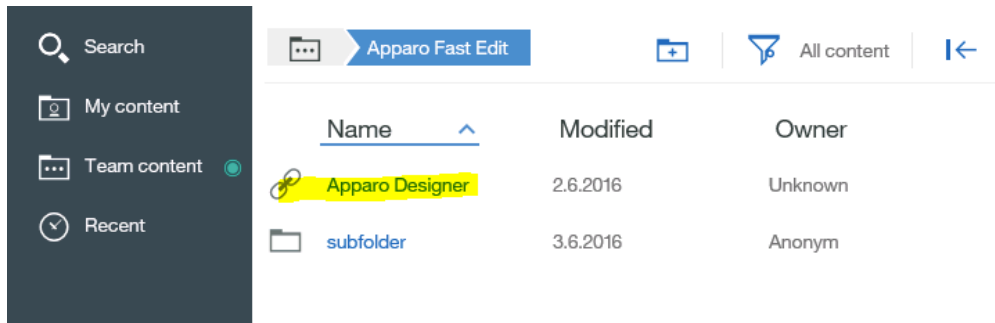
Now the installation of the Apparo gateway for IHS is finished.

7 Installation clients

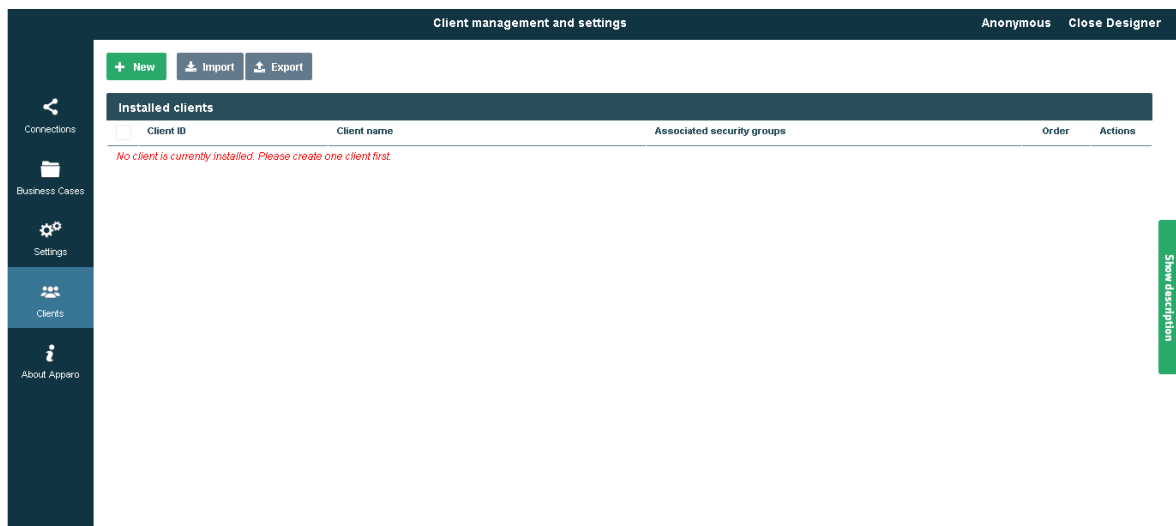
1	<p>Preparation Creation of a database user for the Apparo repository</p>
2	<p>Installation Starting setup file for installation of the files</p>
3	<p>Configuration the Apparo application server Using Apparo Configuration Manager to configure the installation</p>
4	<p>Creating the Apparo Designer entry in Cognos portal Creating the start entry of Apparo Designer</p>
5	<p>Configuration the Apparo gateway Configuration of the Apache web server</p>
6	<p>Installing clients</p>

Now it is necessary to install the clients.

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 is now successfully completed.

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

Demonstration Apparo Fast Edit Training Demonstration Close Designer

Training

Here you will find tutorial videos, the client to practice, as well as other helpful documents and links.

[Download: Apparo Tutorials Client Definition](#)

- Contains the client including online database access for practicing and following the tutorial videos
- Download, unzip and import the client file in Apparo Designer, menu client

[Video: Basics for IBM Cognos Analytics](#)

- Calling the Apparo Designer
- Adding the first client
- Creating database connections
- Creating list views and masks
- Filtering data

[Video 0070: Embedding Business Cases](#)

- Embedding Business Cases
- Filtering BCs with Cognos Analytics

[Video 0071: Embedded Master Detail Apps](#)

- Loading detail window with hyperlink
- Refreshing Master with triggered script file

[Video 0072: Calling Business Cases in an Extra Window](#)

- Calling the detail window in Cognos Analytics lists
- Call via button
- Passing parameters

[Video 0140: Variables - An Introduction](#)

- General Definition of Terms
- First variable types and simple application examples

[Video 0141: Variables - Practical application](#)

- Overview of all variable types
- Usage of variables and hints

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8 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.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 application server using -start true

9 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.

9.1 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: <code>http://localhost:18000/apparo</code> . 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**

9.2 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**

10 TLS/SSL in a Cognos environment

If the **Cognos gateway** is using **TLS/SSL** then there are **no changes necessary** in the Apparo configuration.

If the **Cognos dispatcher** is using TLS/SSL (e.g using https with port 9300) then every installed Apparo application server must be informed about the used certificate.

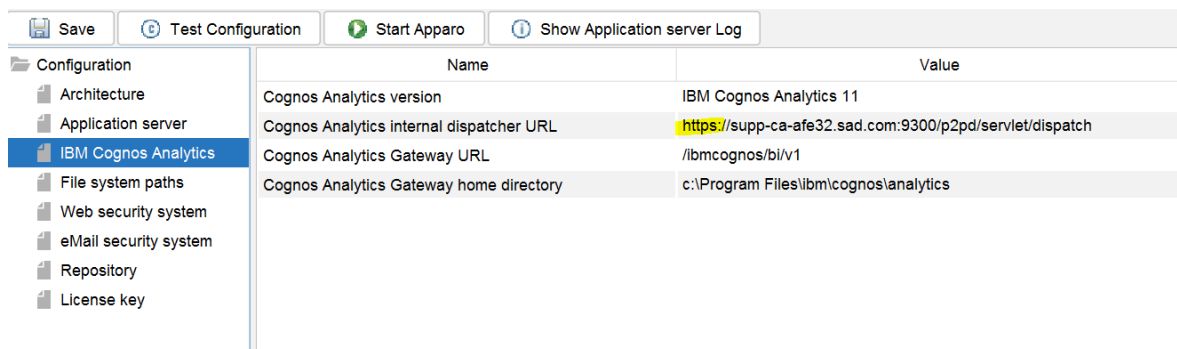
The certificates are stored in [JAVA_HOME_THAT_IS_USED_BY_APPARO]\lib\security\cacerts
 You must change this path in the Apparo Configuration Manager, chapter “File system paths”, setting “Java Keystore path and name” to set it to your used JVM.

You can import your certificate with following command.

In this example the certificate file has the name “filename.cer” and the default password of the key store is “changeit”.

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

Then open the Apparo Configuration Manager again and check if the URL for Cognos is using https:



If there are changes necessary then please update the URL and press “Start Apparo” button.

11 Browser requirements

11.1 Supported browsers and versions

- Microsoft Edge (current version)
- Google Chrome (current version)
- Mozilla Firefox (current version)
- Apple Safari (current version)

11.2 Supported operating systems for client browsers

- Microsoft Windows
- Android
- Apple iOS

11.3 Additional settings for all browsers

- Popup blocker must be **disabled**
- File download (Excel files) must be allowed

12 Support

If you need support, please write an email to:

support@apparo.solutions