Installation Guide

Apparo Fast Edit

Multi Instance / IIS & Load Balancing

MS Windows / QlikView

Version 3.0.7

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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:

Hardware requirements

- File system about 1000 MB
- Main Memory about 2000 MB

Supported operating systems

- Windows 2008-2016 (64 Bit)

Supported QlikView versions

- QlikView 11 Server
- QlikView 12 Server

Supported security systems

- All security systems that are currently in use for QlikView

Supported virtual environments

- VMware ESX, ESXi

Apparo Fast Edit must be installed using a **local Windows administrator** account.

QlikView server must be already installed and using Microsoft IIS and running.

1.1 Architecture

Possible Apparo Fast Edit architectures:

1	**Single Instance** Your existing **QlikView** environment is installed on **one computer only – that's suitable for small environments.** A „Single Instance" is useful for small environments or test systems. A single instance has no Apparo gateway. That means usage of MS IIS is not necessary. The communication is done using port 18000 This installation document is **not** describing this architecture.
2	**Multi Instance** One Apparo gateway and one or more Apparo application servers are installed on one or more hosts. Usage MS IIS is necessary. Communication is done using http/https port. A „Multi Instance" is useful for better performance and high availability.

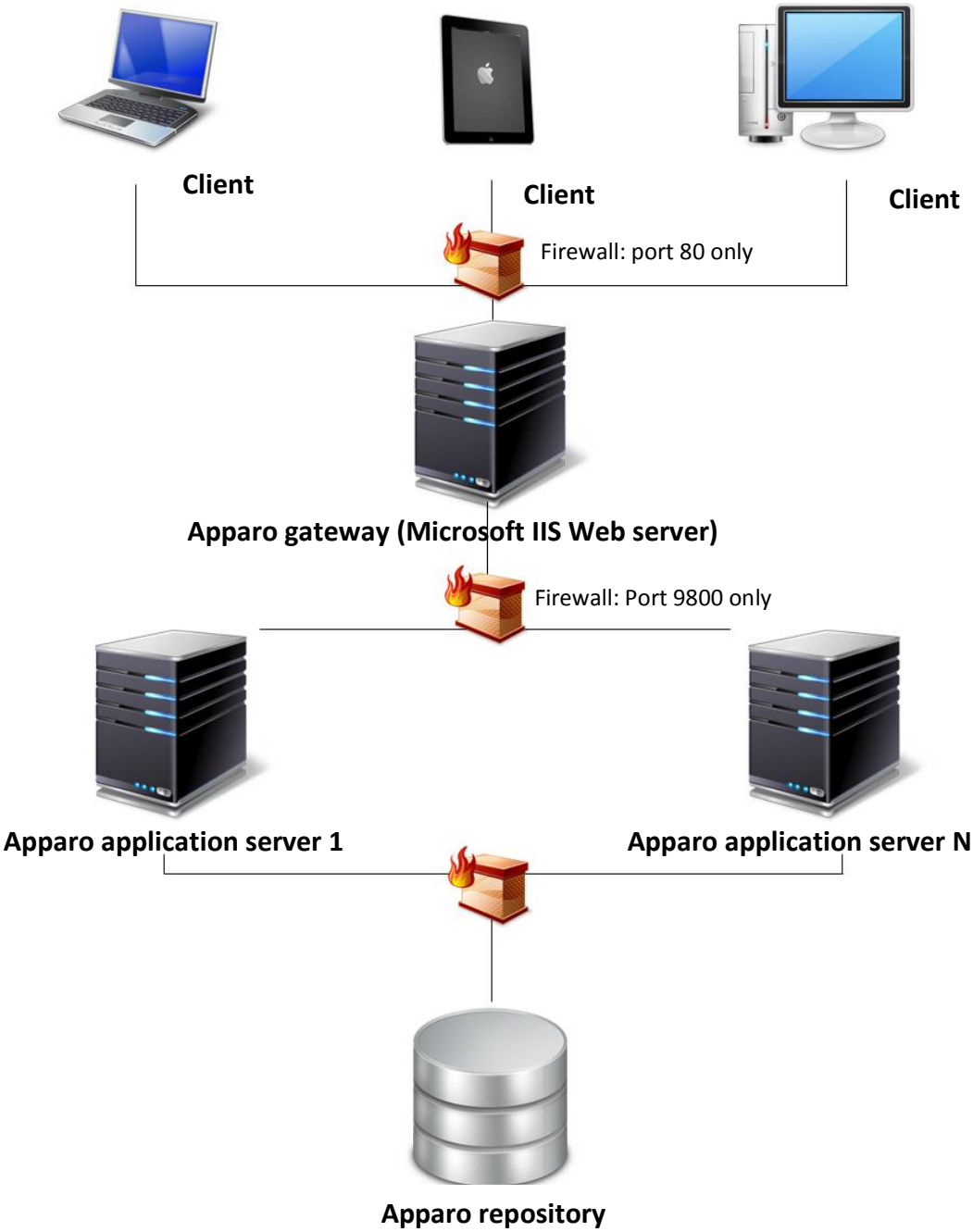
This document is describing the installation and configuration process for a Multi Instance.

1.2 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 the Apparo gateway (parallel to IIS server)**

System architecture overview



2 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	**Installation of the Apparo gateway**
5	**Configuration of the Apparo gateway** Configuration using the Apparo configuration manager
6	**Installation Configuration of Microsoft IIS web server** **Installation of the Apparo QlikView Extensions**
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**
- **Internal database (for test and development systems)**

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 user".

Essential grants:

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

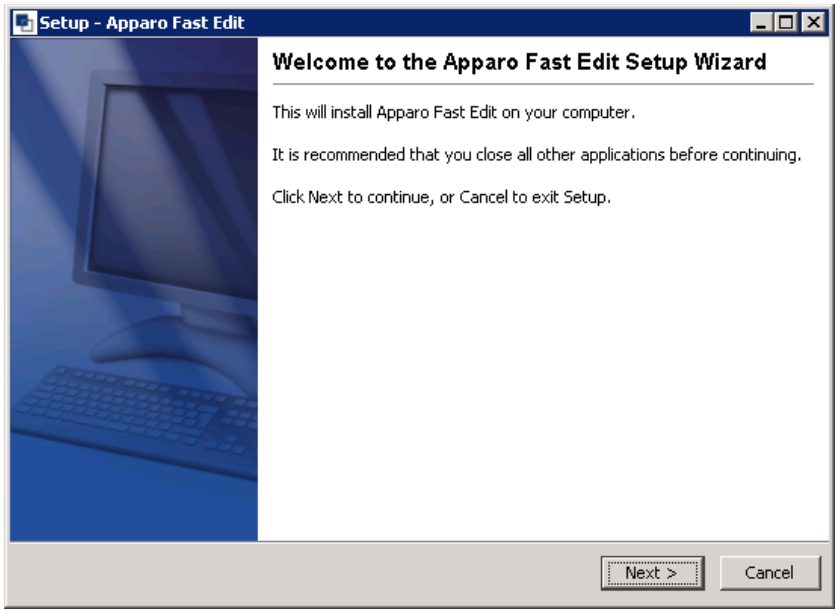
3 Installation of all Apparo application servers

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	**Installation of the Apparo gateway**
5	**Configuration of the Apparo gateway** Configuration using the Apparo configuration manager
6	**Installation Configuration of Microsoft IIS web server** **Installation of the Apparo QlikView Extensions**
7	**Installing clients**

Start the Installation by execute the file

FastEdit3.0.7.1_yyy_win64_tomcat_qlikview_cluster_IIS.exe

This setup is prepared for clustering and MS IIS usage only.

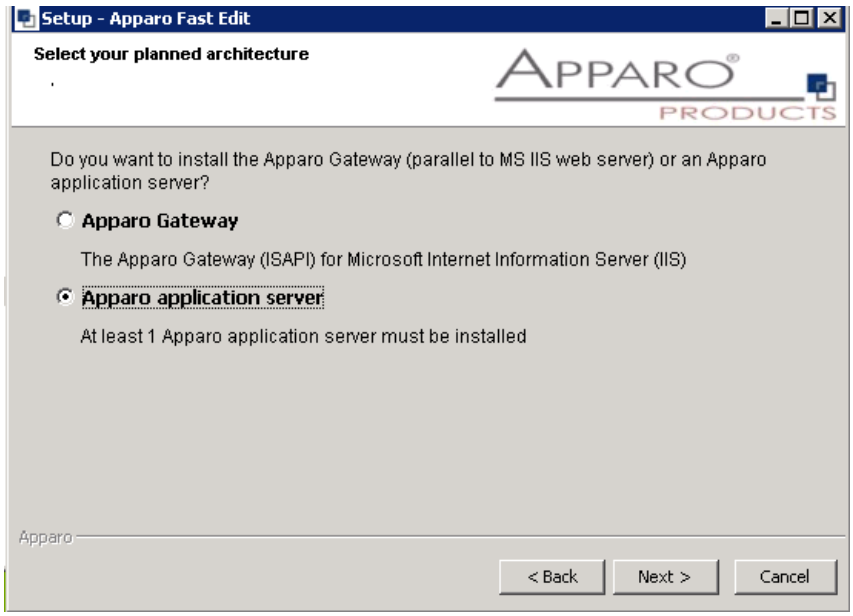


Confirm the beginning of the installation by clicking „**Next**“.

3.1 License agreement

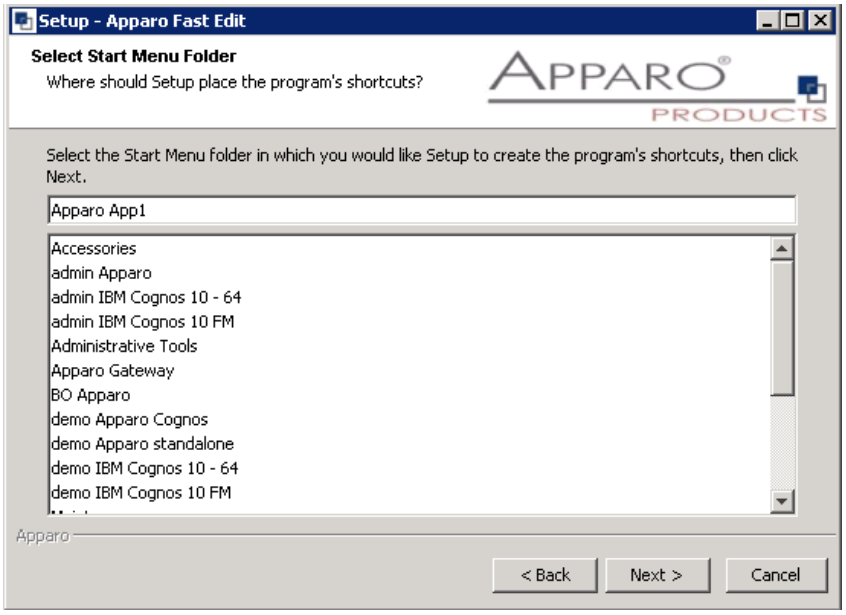
Read and confirm the license agreement by clicking „**Next**“.

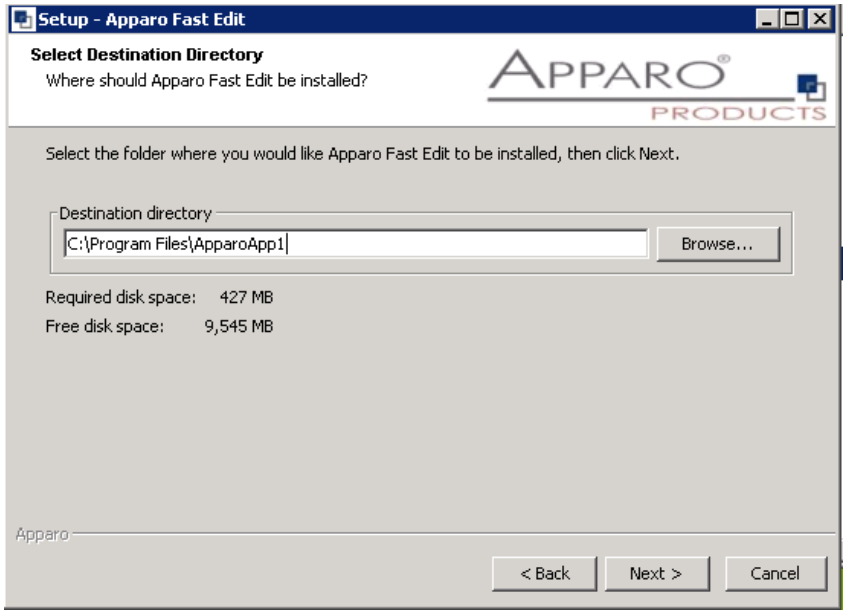
3.2 Selecting the architecture



Select "**Apparo application server**" and choose „**Next**>".

3.3 Defining the start menu entry and the target file directory



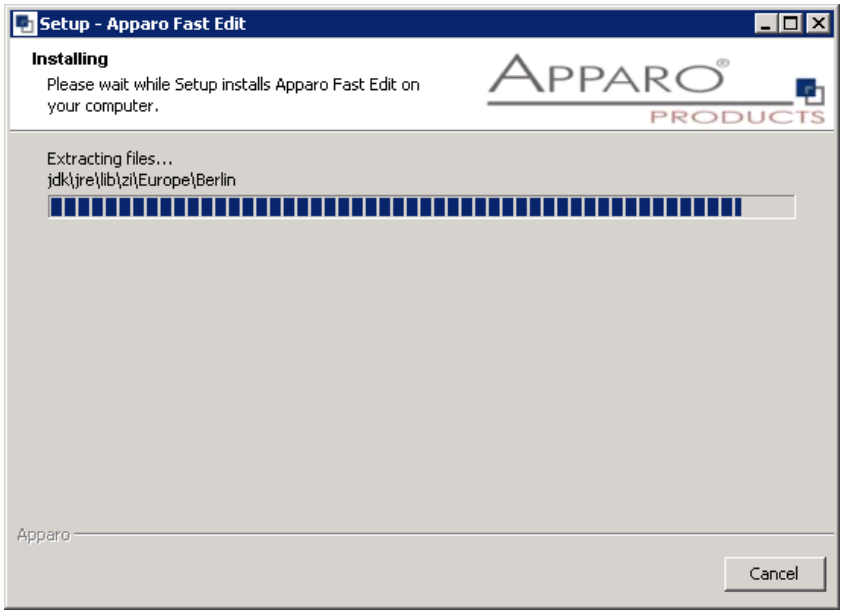


Important: You must be sure that every installation (e.g. Apparo gateway, Apparo application server) are using an own installation path.

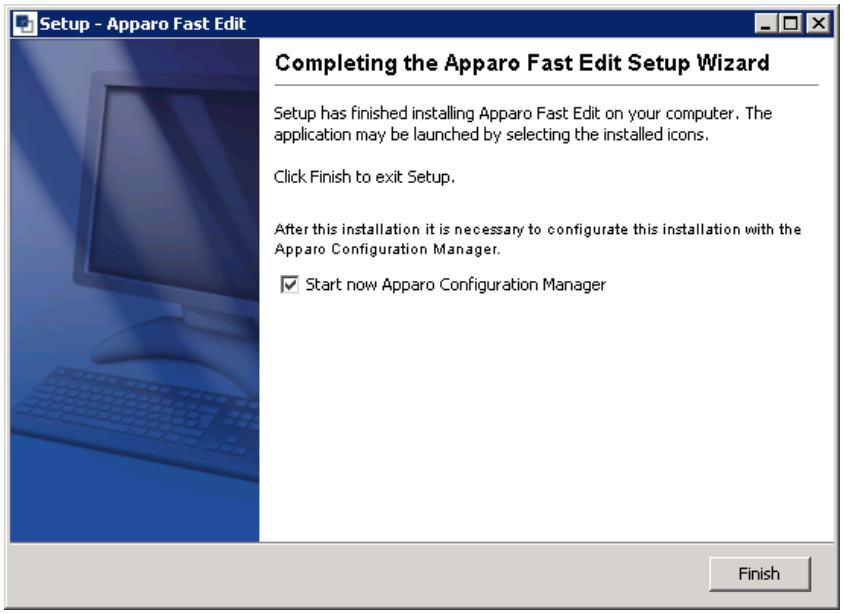
Please define the installation path and choose „**Next >**“.

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



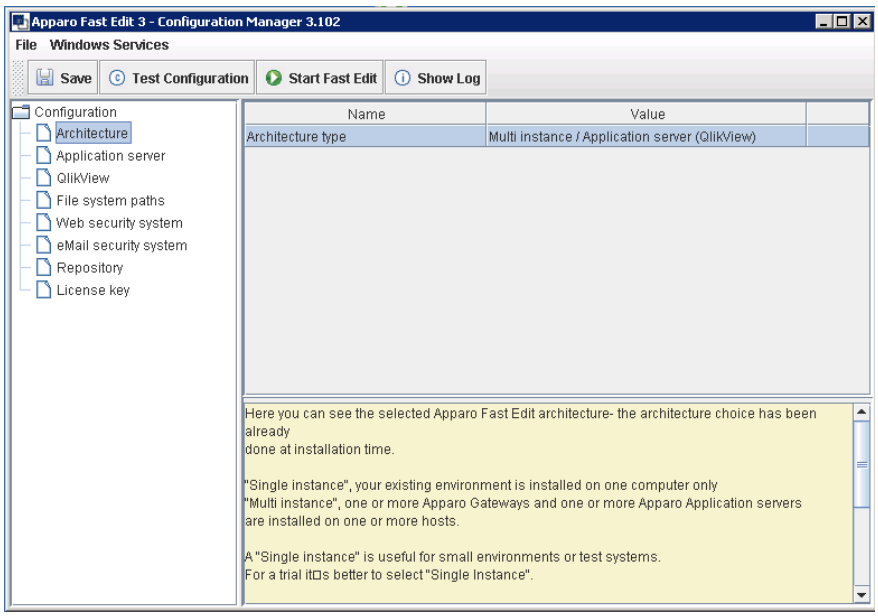
Now it's time to **configure** the installation with the **Apparo configuration manager.**

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

4 Configuration 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	**Installation of the Apparo gateway**
5	**Configuration of the Apparo gateway** Configuration using the Apparo configuration manager
6	**Installation Configuration of Microsoft IIS web server** **Installation of the Apparo QlikView Extensions**
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 „Start Fast Edit“ button for starting the application server**

4	**You can see the log file of the application server with pressing „Show Log“** **If the application server is running then you can see in the log:** **2016-11-07 02:37:41,831 INFO com** **++** **+ Apparo Fast Edit 3.0.7.1 (Build nnn) was successfully started at 07.11.2016 02:37:41 +** **++**

Test of an Apparo application server:

http://<applicationserver:<Tomcat Start Port>/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.

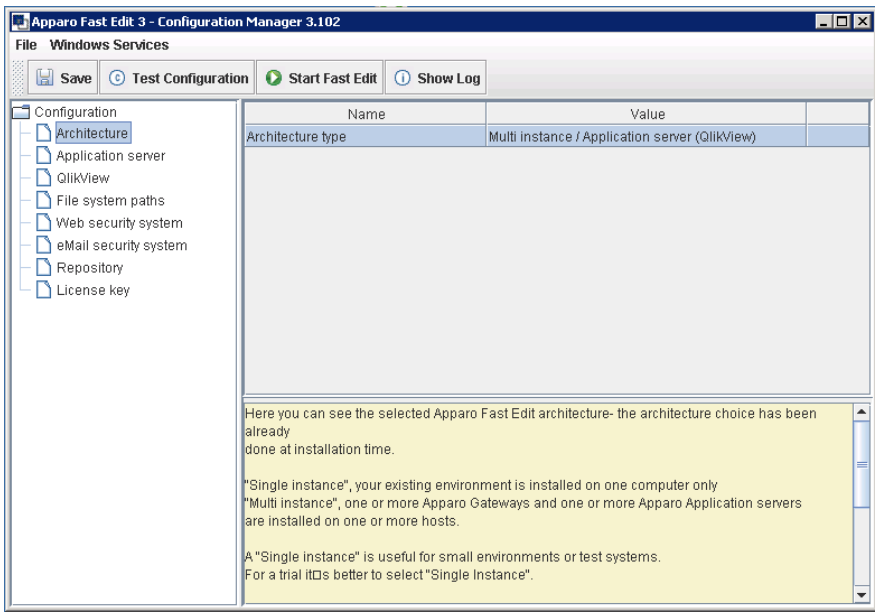
The configuration of Apparo Fast Edit is stored in file configuration.xml
in file directory [APPARO_HOME]\FastEdit\cm .

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.

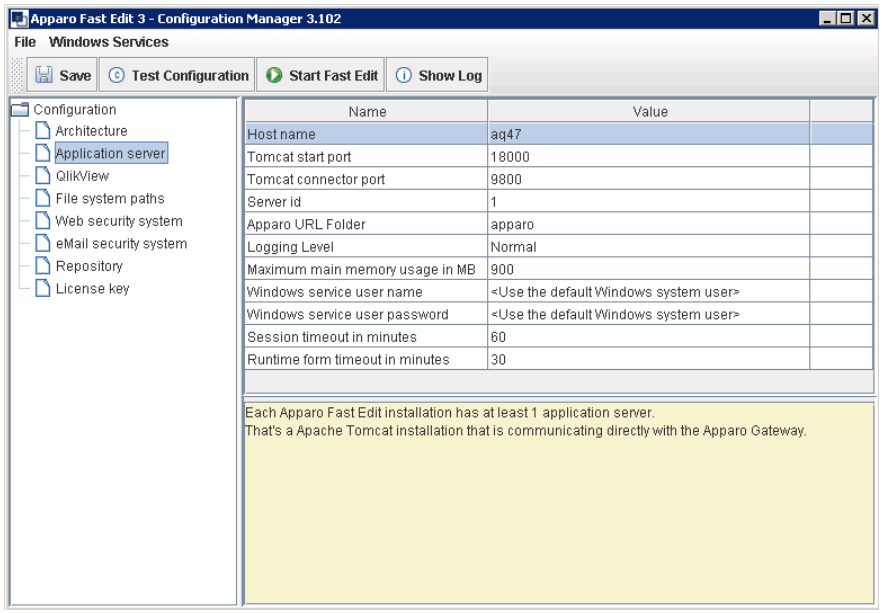
4.1 Architecture

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

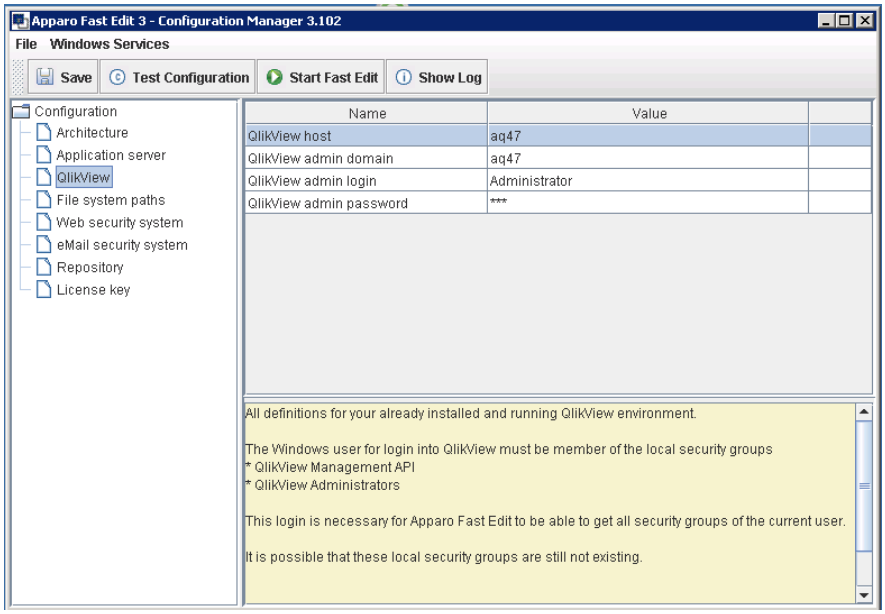
Settings for the Apparo application server:



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

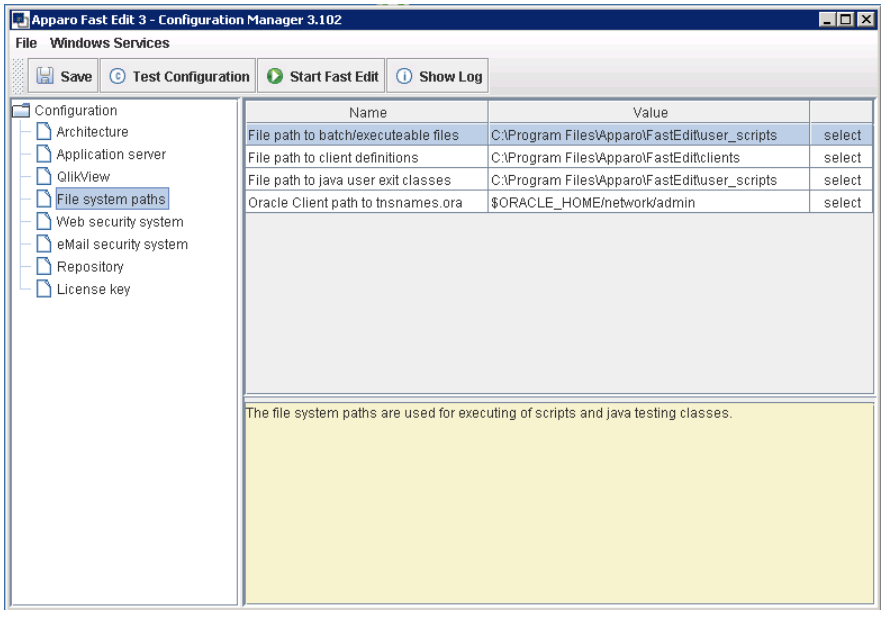
This Server ID must be used later in the **Apparo gateway settings too.**

Settings for the already installed QlikView environment:



4.3 File system paths

File directories for the server side scripts and user defined Java classes:



It is important that the Windows system user or the user that is running the Windows Service of Apparo Fast Edit has write and read access to these file directories.

Hint: If you use many application servers then all application server must use the same file directory.

Therefore it's possible to use Windows shares, e.g. \\server1\scripts

If using shares it's necessary that the Windows service of Apparo Fast Edit must not use a local system account.

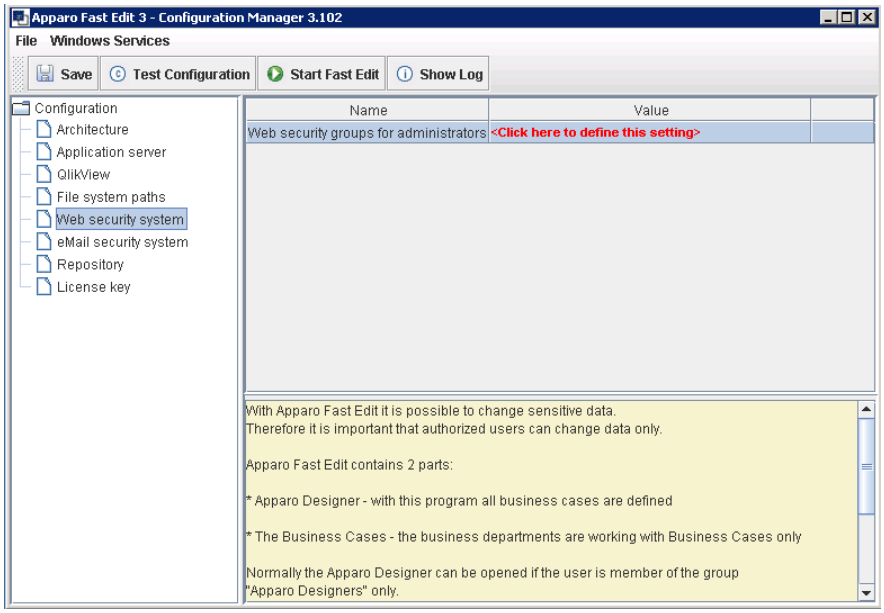
Using a Windows Administrator account is for example a solution.

4.4 Web security system

All settings for the used security system:

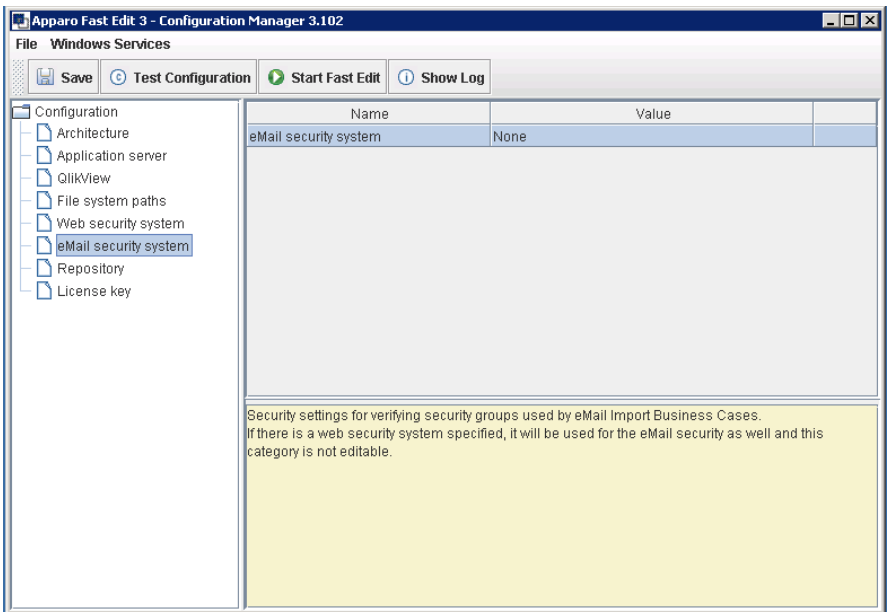
In this chapter you can define the **security group** of all users that is necessary to be able to open the Apparo Designer **with full access**.

If there is no security group defined then all users can open the Apparo Designer with full access.



4.5 eMail security system

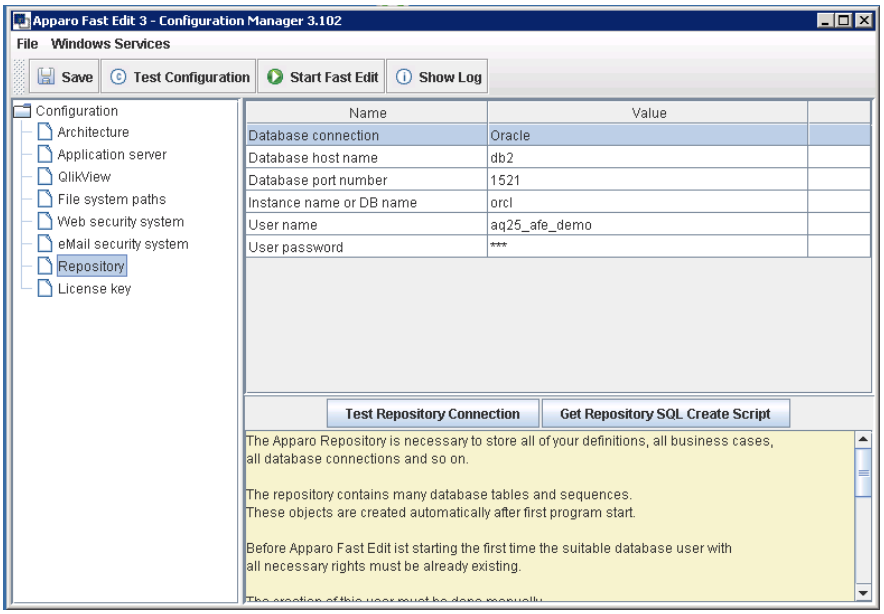
The Excel Import Business Case is running outside of the QlikView security and need therefore an own security system.



4.6 Repository

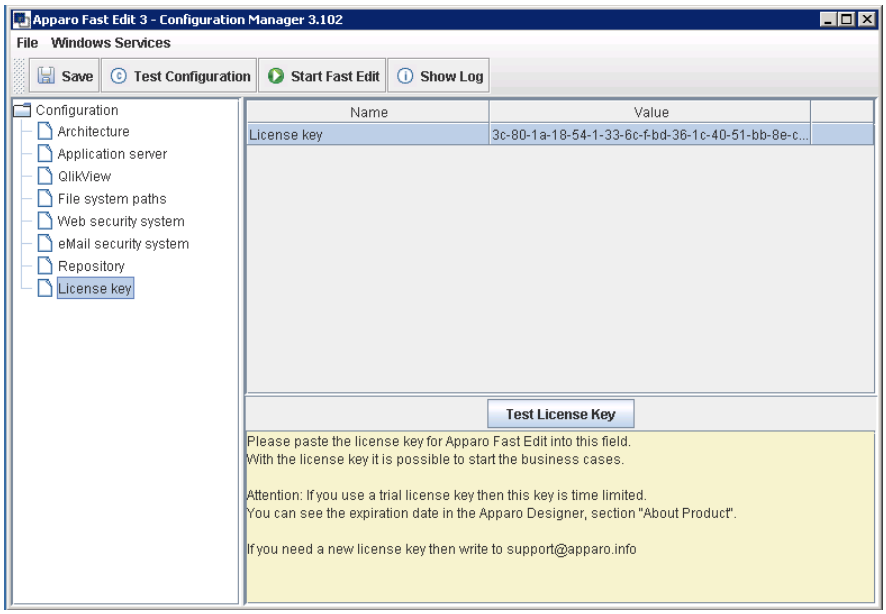
The database connection to the Apparo repository.
The repository are many database tables in that all definitions are stored.

The internal database is not ready for clustering.



4.7 License key

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

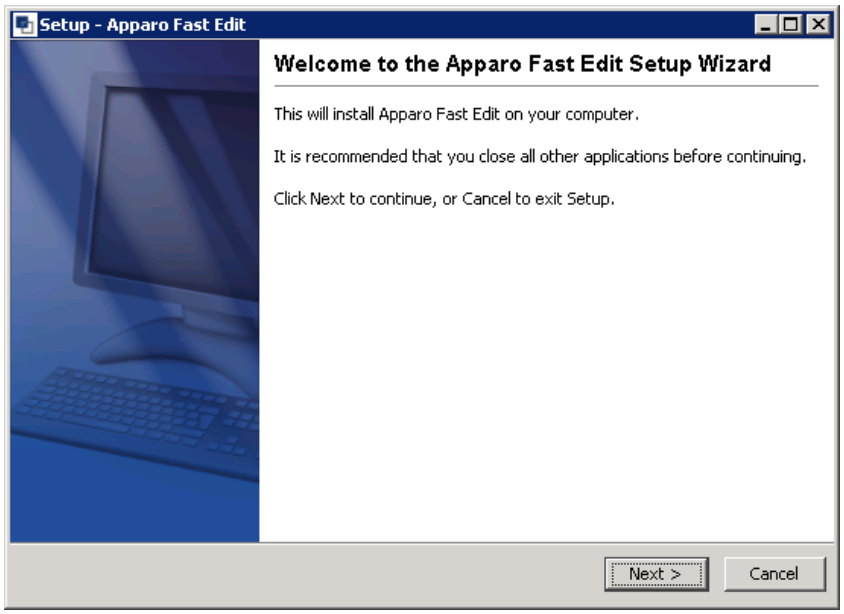


5 Installation of Apparo gateway

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	**Installation of the Apparo gateway**
5	**Configuration of the Apparo gateway** Configuration using the Apparo configuration manager
6	**Installation Configuration of Microsoft IIS web server** **Installation of the Apparo QlikView Extensions**
7	**Installing clients**

Start the installation by opening the file

FastEdit3.0.7.1_yyy_win64_tomcat_qlikview_cluster_IIS.exe

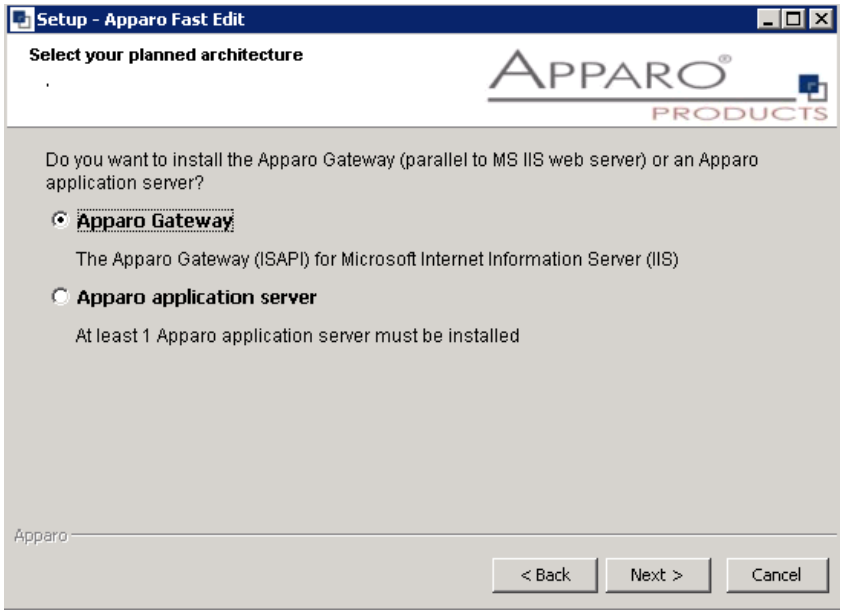


Confirm the beginning of the installation by clicking „**Next**“.

5.1 License agreement

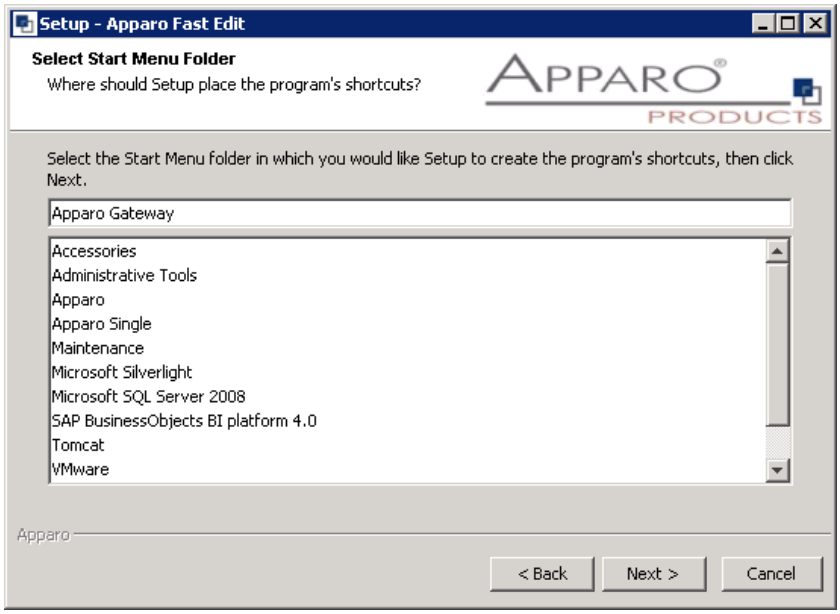
Read and confirm the license agreement by clicking „**Next**“.

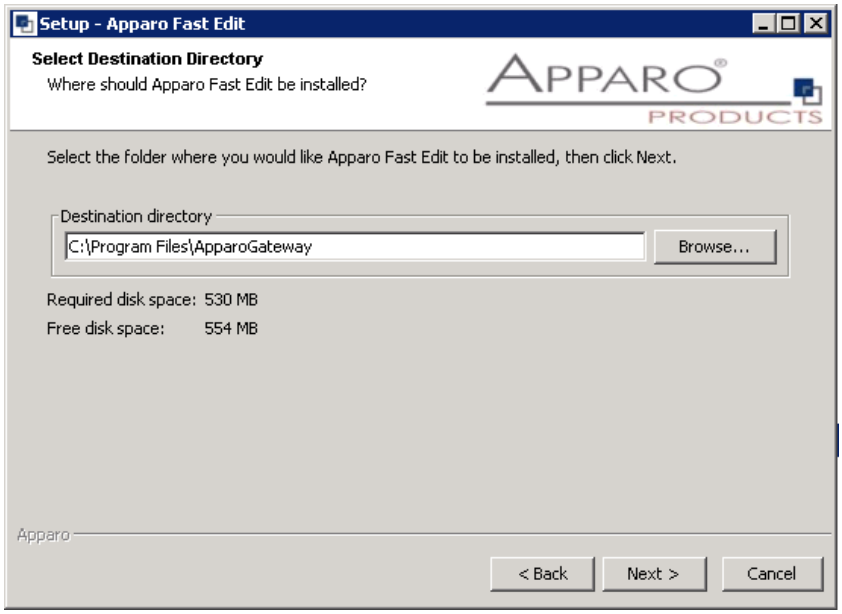
5.2 Selecting the architecture



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

5.3 Defining the Windows Start entry and target file directory





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

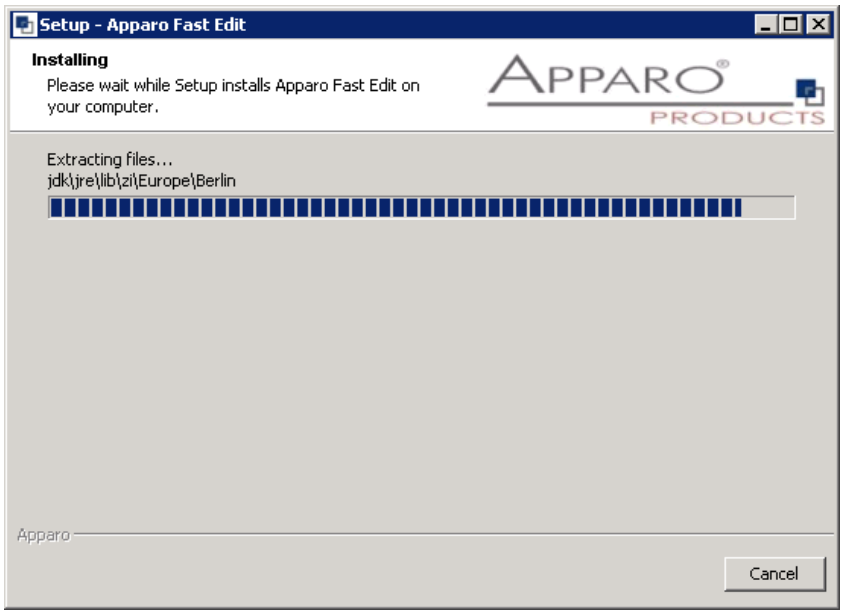
The configuration of Apparo Fast Edit is stored in file configuration.xml in file directory [APPARO_HOME]\FastEdit\cm .

Hint:

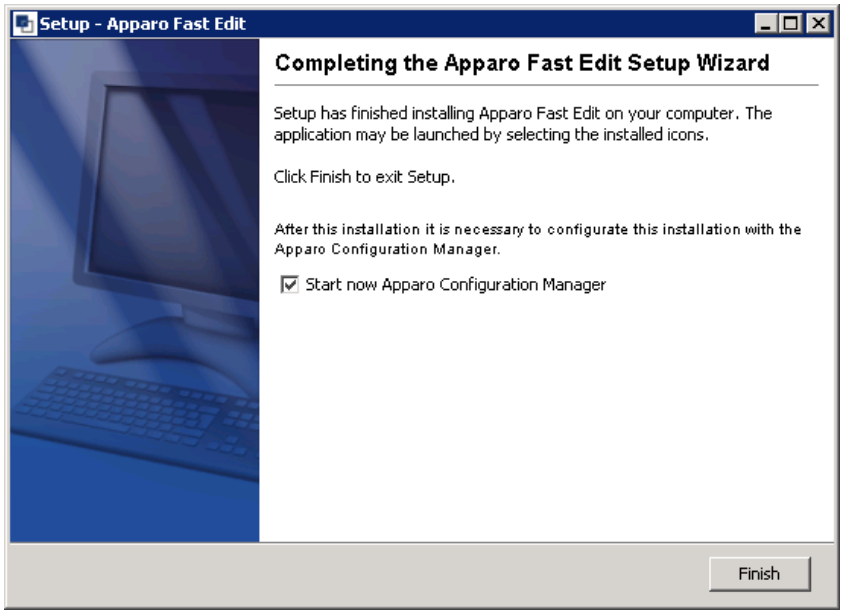
If you want to install the Apparo gateway parallel to the same server like an Apparo application server then you must use another target file directory, e.g. c:\Program Files\ApparoGateway

5.4 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**.



5.5 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.

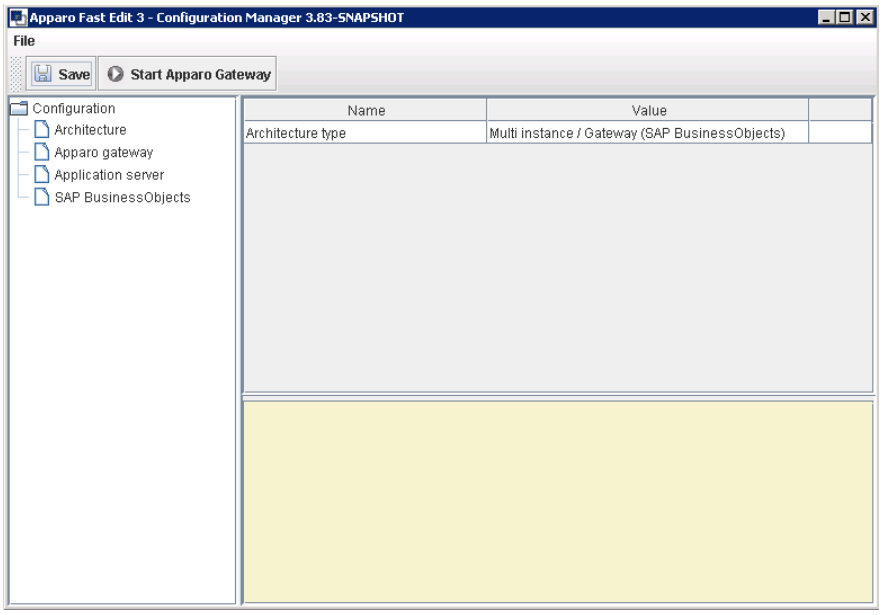
6 Configuration of the Apparo gateway

1	**Preparation** • Analysing environment • Creation of a **database user** for the Apparo repository • Defining the security group for Apparo Administrators
2	**Installation of all Apparo application servers**
3	**Configuration of all Apparo application servers** Configuration using the Apparo configuration manager
4	**Installation of the Apparo gateway**
5	**Configuration of the Apparo gateway** Configuration using the Apparo configuration manager
6	**Installation Configuration of Microsoft IIS web server** **Installation of the Apparo QlikView Extensions**
7	**Installing clients** Installing the languages in Apparo Designer

Important

Before starting of the Apparo gateway 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 Fast Edit".

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 „Start Apparo gateway“ button for deploying and starting.**

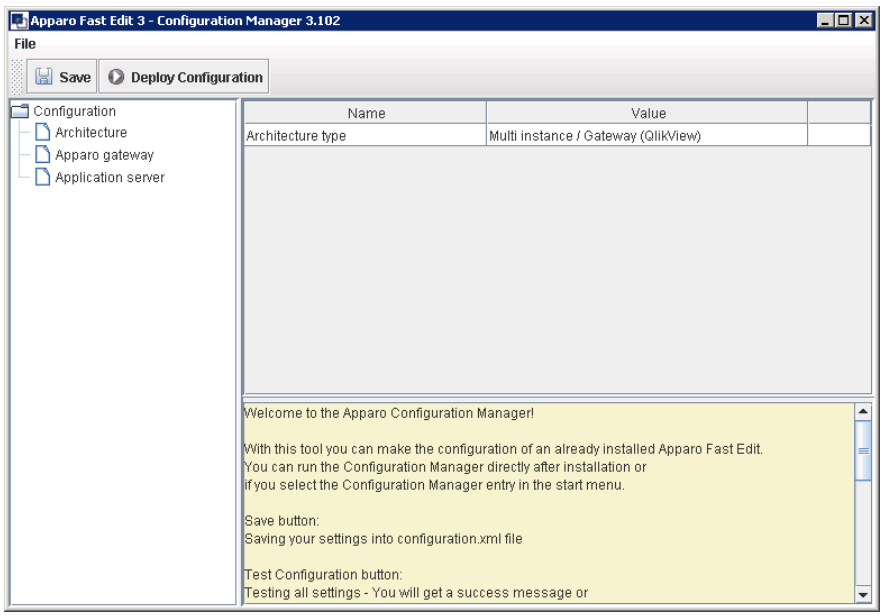
The configuration of Apparo Fast Edit is stored in file configuration.xml
in file directory [APPARO_HOME]\FastEdit\cm .

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

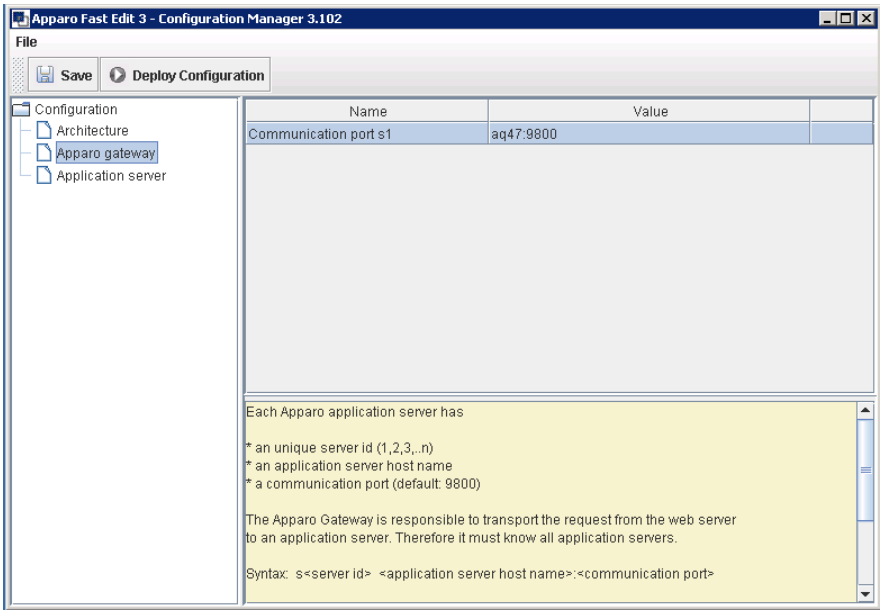
If you open the Apparo configuration manager then you will see the same configuration settings like of your source system and it’s possible to change it comfortable.

6.1 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.



6.2 Apparo gateway: List of application servers



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

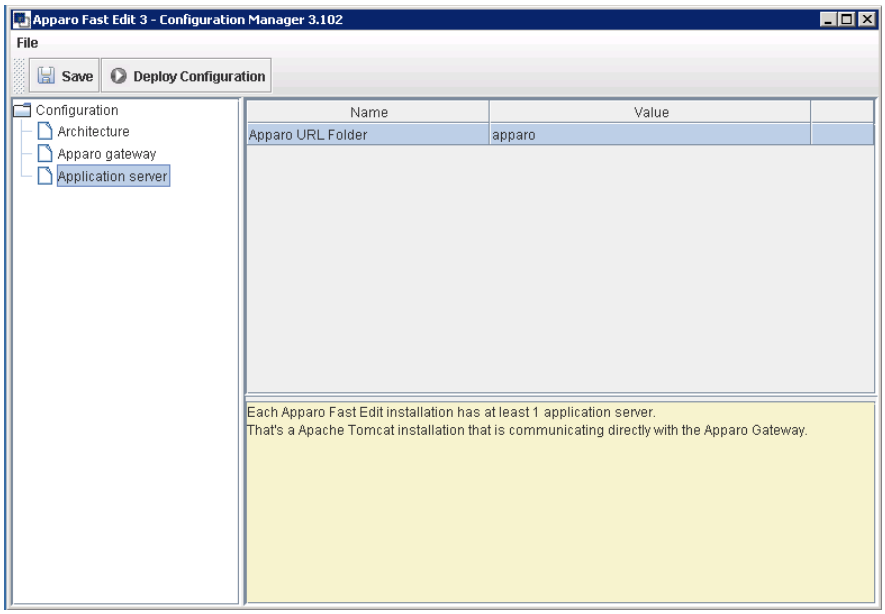
Each application server has a communication port – e.g. 9800 and an unique server id - e.g. s2.

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.**

6.3 Application server

Here you can define the folder name of Apparo, default: apparo



6.4 Configuration of the Microsoft Internet Information Server 7 and higher

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	**Installation of the Apparo gateway**
5	**Configuration of the Apparo gateway** Configuration using the Apparo configuration manager
6	**Installation Configuration of Microsoft IIS web server** **Installation of the Apparo QlikView Extensions**
7	**Installing clients** Installing the languages in Apparo Designer

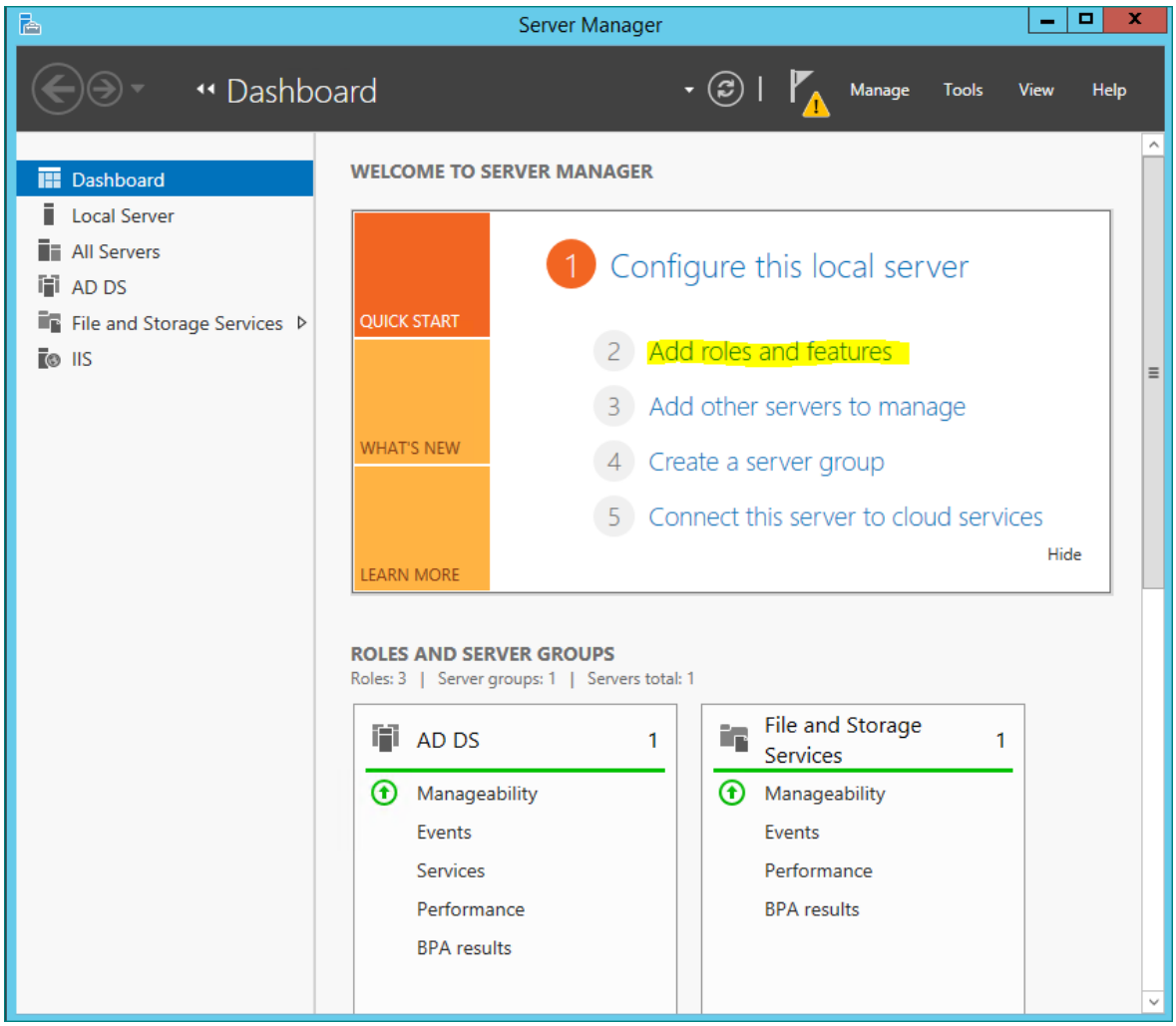
This chapter is describing the configuration of IIS 7 and higher.

The IIS must support ISAPI modules. This enhancement must be installed first.

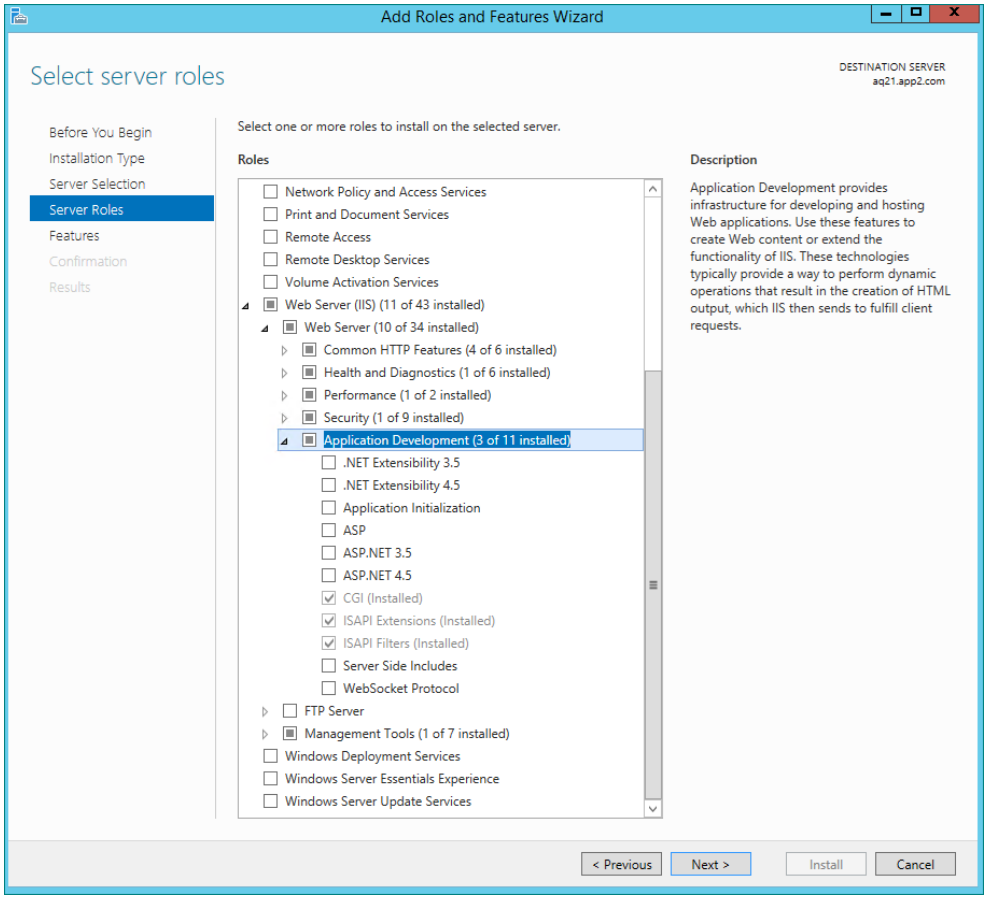
Please start the **Server Manager** of the Windows operating system.

Select:

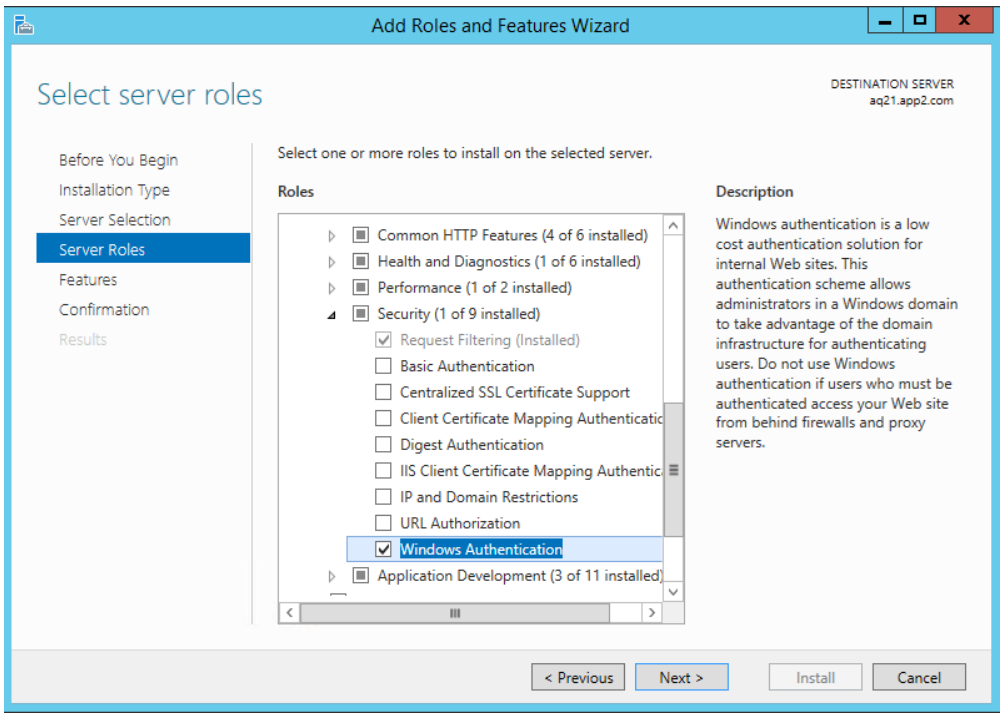
- Add roles and feature:



Please check if selections **ISAPI Extensions** and **ISAPI Filters** are enabled.



Please enable in chapter „**Security**“ the feature „**Windows Authentication**“:



After that the IIS is ready for the next installation tasks.

Following steps are necessary:

1	A new virtual directory apparo must show to file directory „cgi-bin“
2	Allowing ISAPI filter
3	Installation of the ISAPI filter with the name apparo using IIS_fastedit.dll

Important

Before starting of the Apparo gateway installation it is important that the configuration with the Apparo configuration manager is successfully finished and the application server is already running with pressing button “Start Fast Edit”.

The IIS configuration guide is also available as tutorial video in our YouTube channel:

http://movies.apparo.solutions

1	A new virtual directory apparo must show to file directory „cgi-bin“

You must use a local Windows Administrator account for installation.
Using a domain account with administrator role is not always working correctly.

Open the file directory [APPARO_HOME]\FastEdit\cgi-bin

You see 2 files:

- IIS_fastedit_32bit.dll
- IIS_fastedit_64bit.dll

If your operating system is running with 32 bit then use first file.

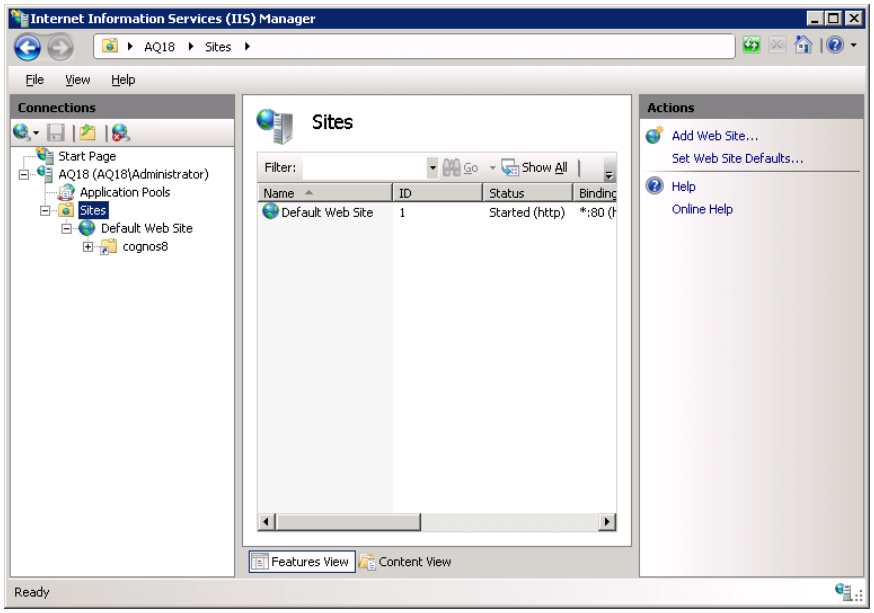
You must use the same Application Pool for QlikView, Apparo and Default Web Site.

If your operating system is using 64 bit then check if this pool is accepting 32bit applications (see setting “Enable 32bit Applications”) too. If yes then use the file “IIS_fastedit_32bit.dll”.
If not then use the “IIS_fastedit_64bit.dll”.

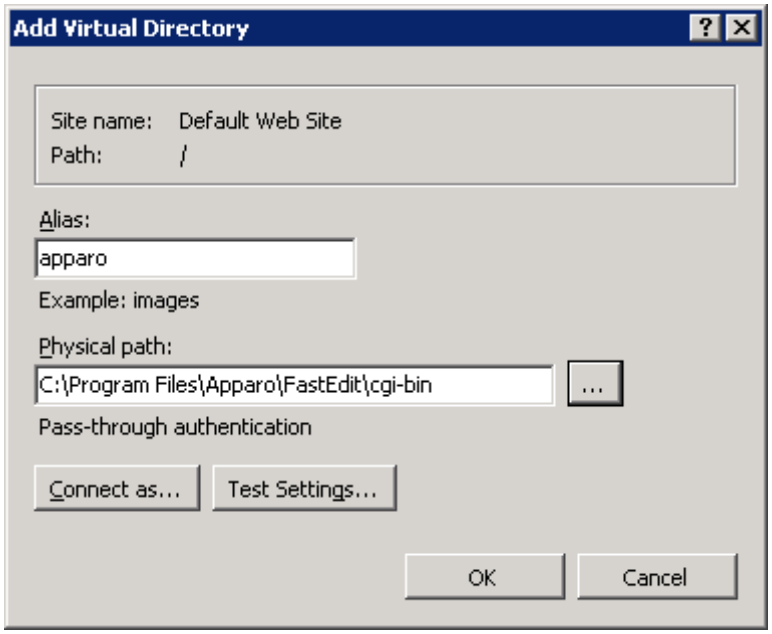
Copy the right file to “IIS_fastedit.dll” into the same cgi-bin file directory.

Next step:

Open the IIS console:

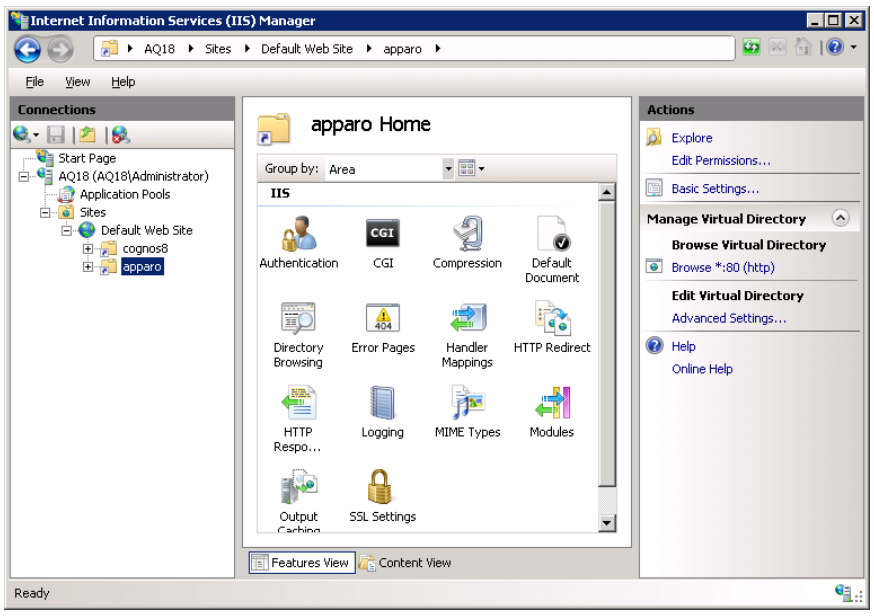


Choose the „**Default Web Site**“, press right mouse button and select „**Add virtual Directory**“.



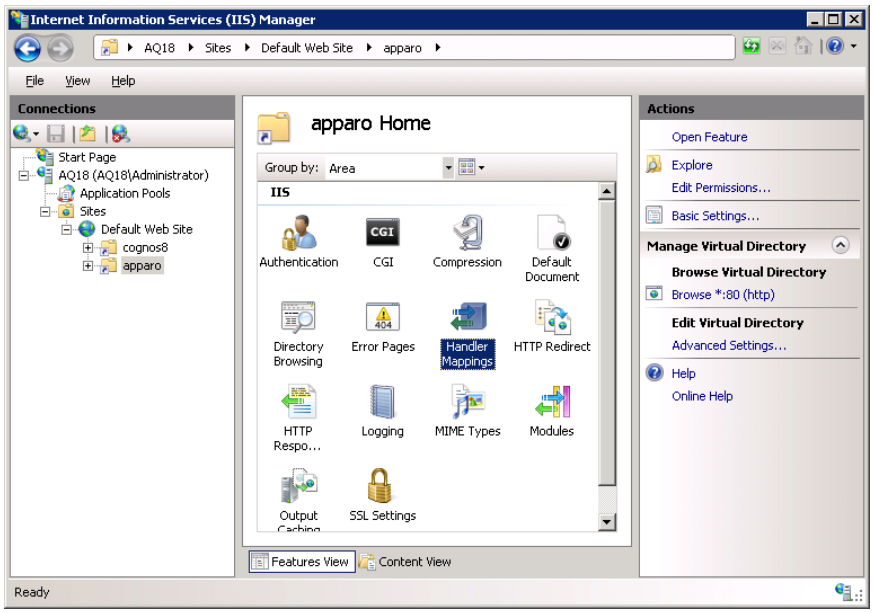
Enter the alias "**apparo**" and the path to the cgi-bin file directory of Apparo Fast Edit.

Press „**OK**"

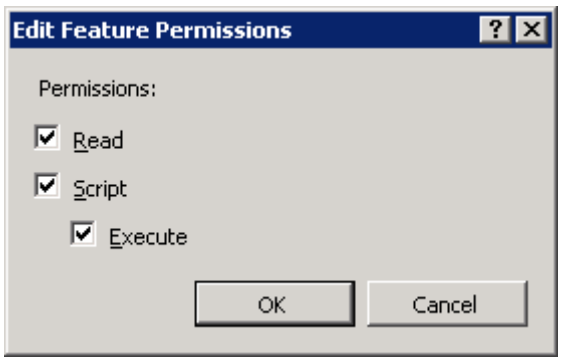


This directory must have **executable** rights:

Select “**apparo**” folder again and double-click “**Handler Mappings**”



Select on the right side “**Edit Feature Permissions…**” and enable “**Execute**”.



Press “**OK**”.

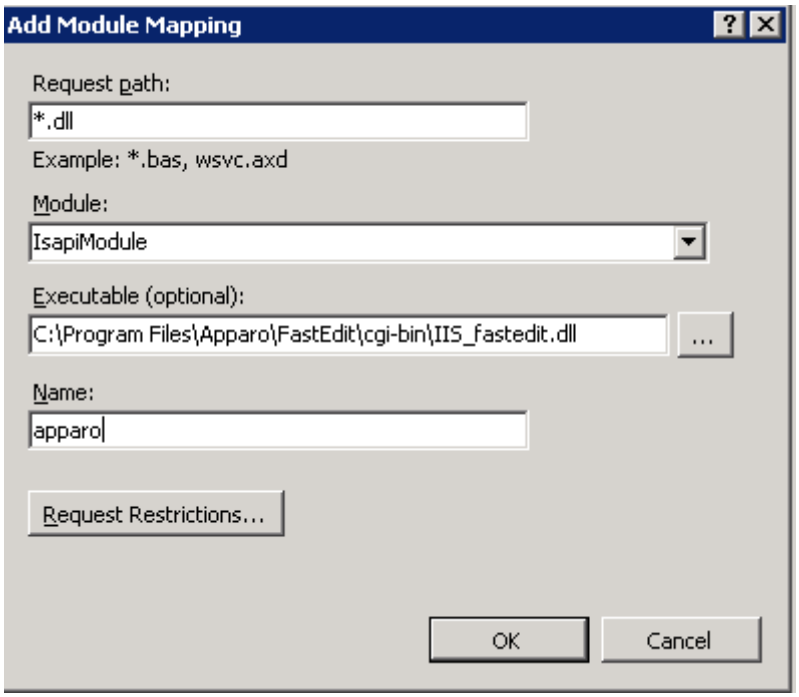
Defining the mapping:

Choose the new created virtual directory „**apparo**“.

Double click - now you can define a new mapping.

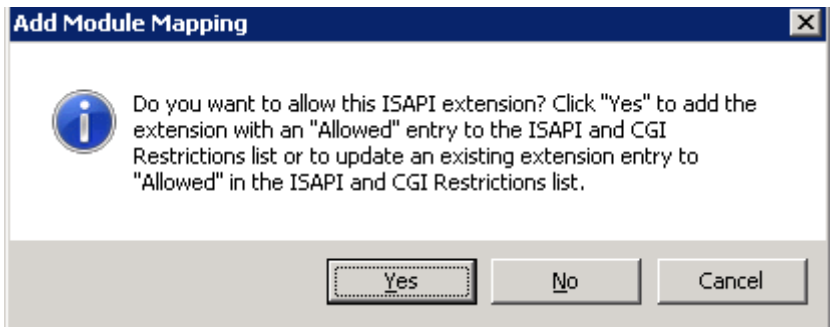
Select entry „**Add Module Mapping…**“ from the right side.

Now you see a new window for the mapping definition.
Please enter the necessary entries:



„**Executable**“ must contain the valid path to the used ISAPI file IIS_fastedit.dll.

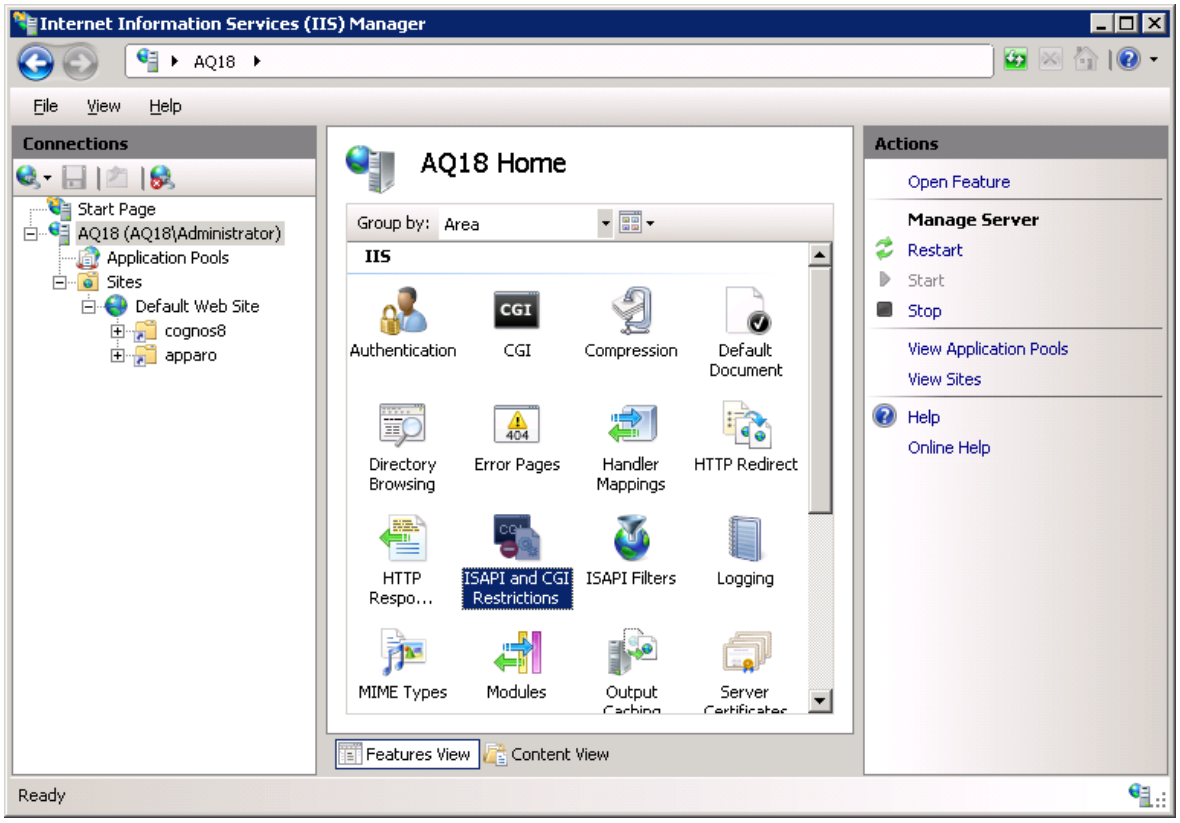
Now press „**Ok**“ and

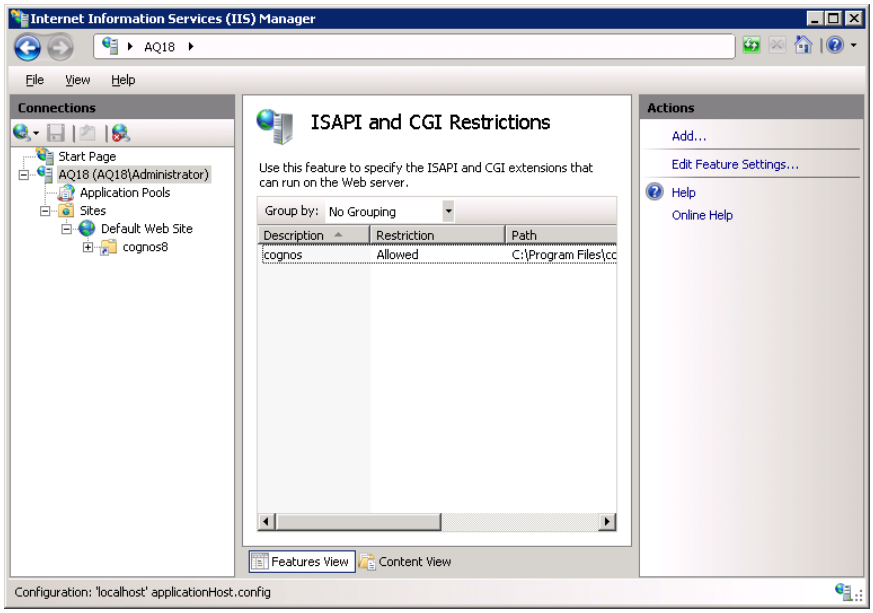


then „**Yes**“.

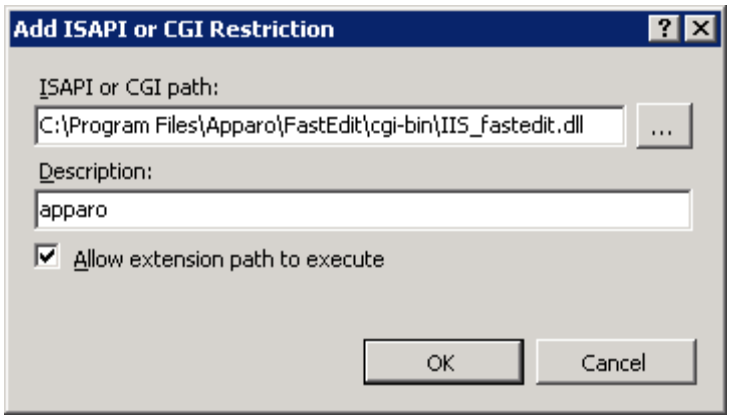
2	Allowing ISAPI filter

Select the server name entry (here: AQ18) and double click "**ISAPI and CGI Restrictions**":





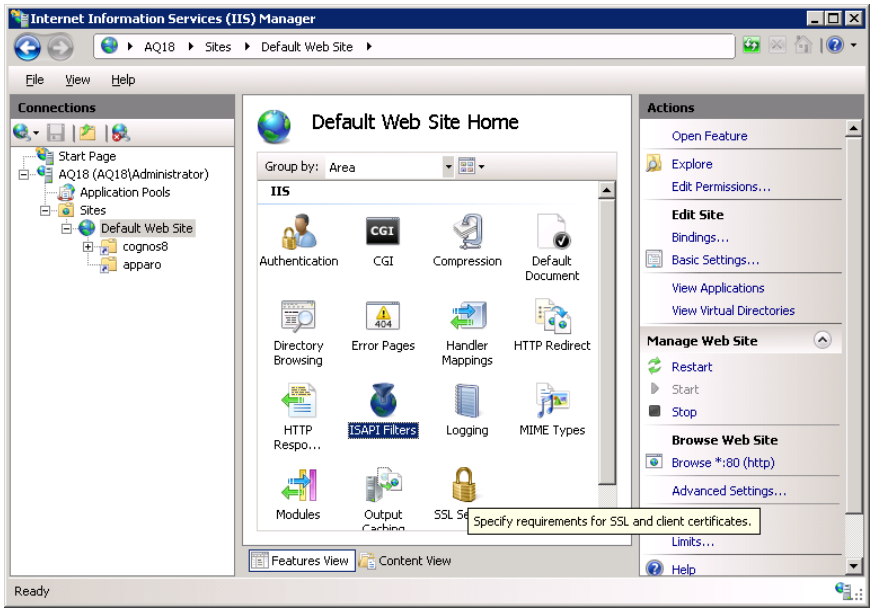
Press "**Add…**" and input:



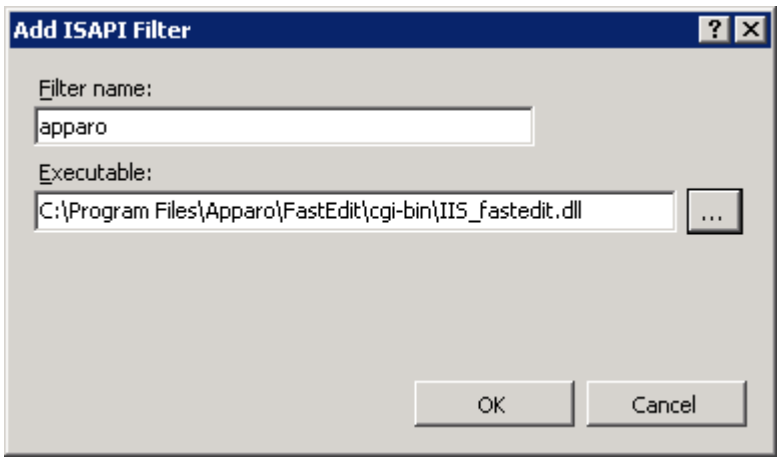
Enable **"Allow extension path to execute**" and press "**OK**".

3	Installation of the ISAPI filter with the name apparo using IIS_fastedit.dll

Select again "**Default Web Site**" and double click "**ISAPI Filters**":



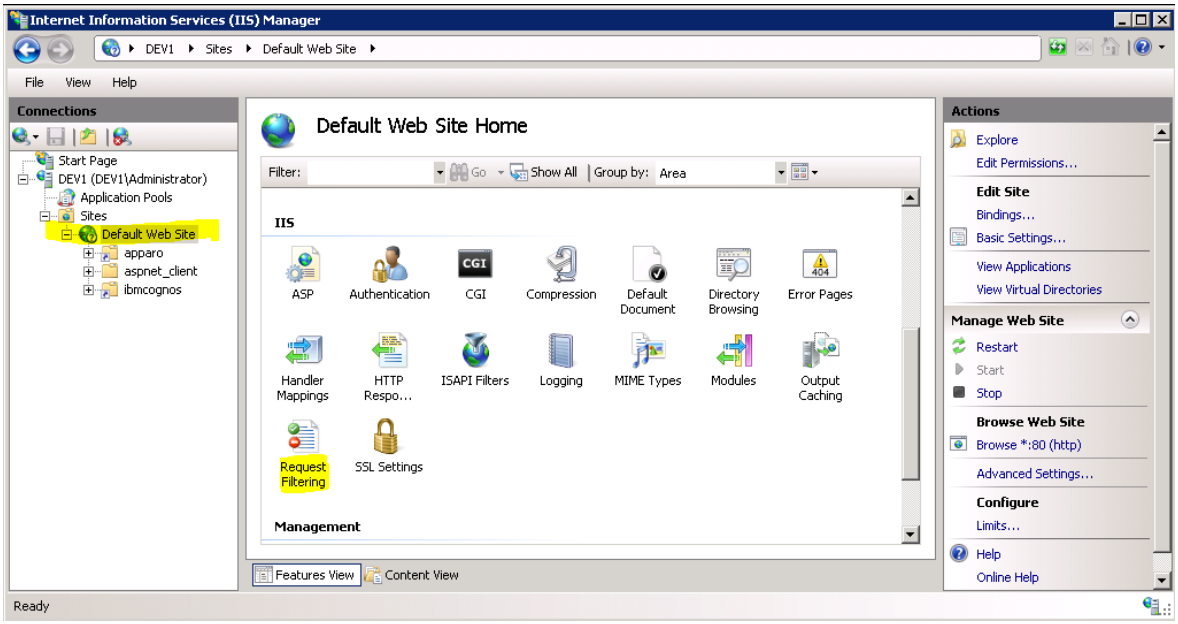
Press "**Add…**"



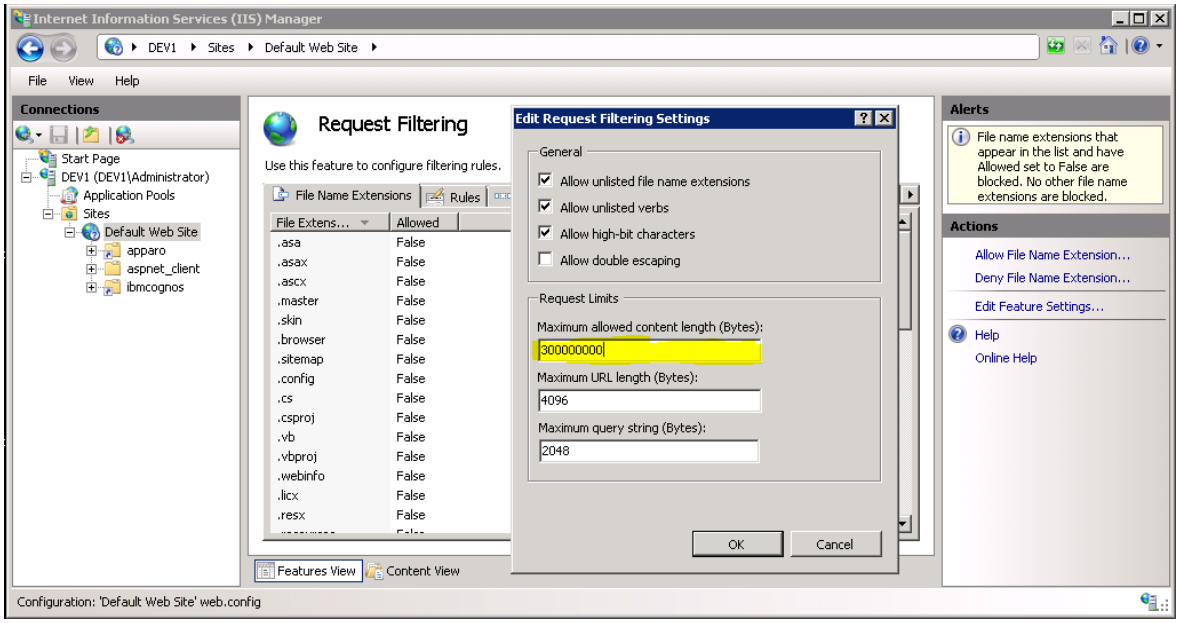
Input the filter name „**apparo**" and select the **IIS_fastedit.dll** in file directory „**[APPARO_HOME]\FastEdit\cgi-bin**"

Press "**OK**".

Resizing the upload limit



Select “Default Web Site” in the tree view, left side.
Select „Request Filtering“ with double-click.
Select “Edit Feature Settings” on right side.



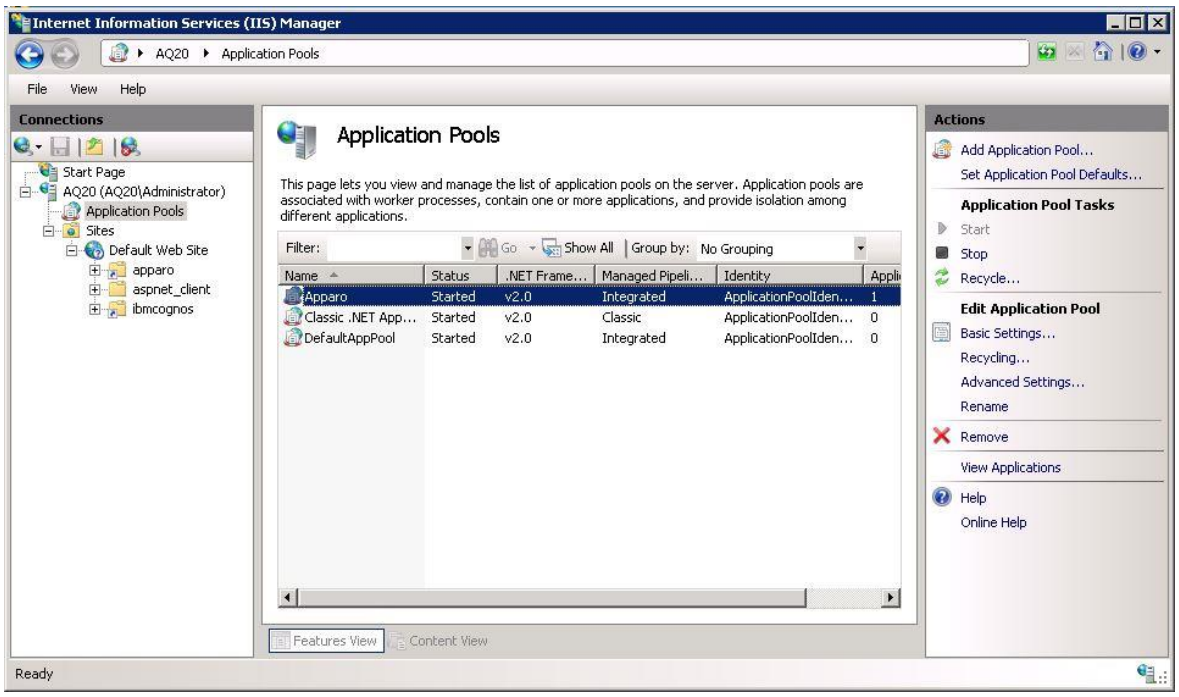
Change value of Maximum allowed content length (Bytes) to 300 000 000 (= 300 MB).

Now the installation of the Apparo gateway is successfully finished.

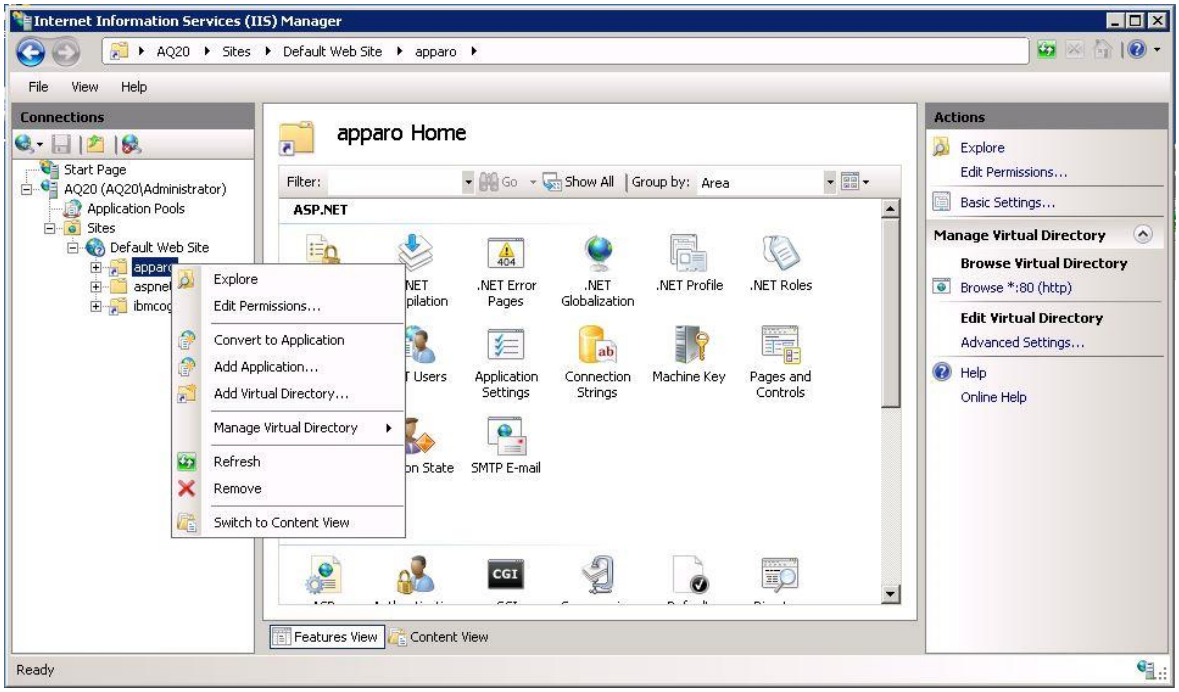
If you can't see this message then:

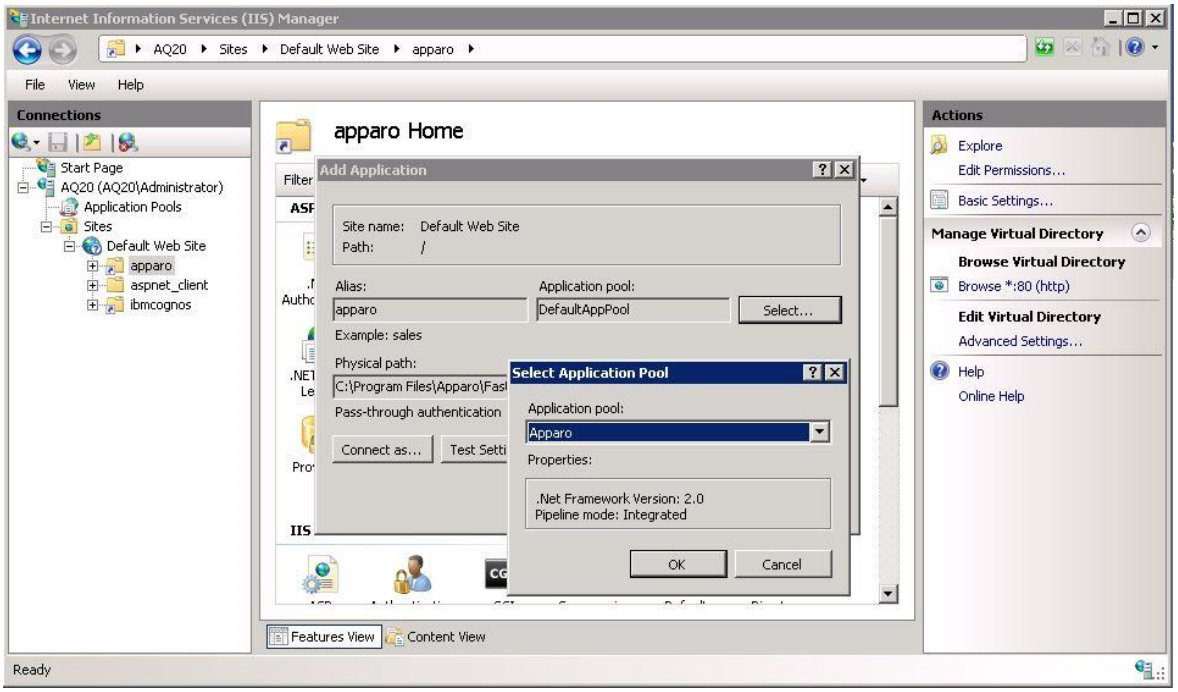
- **test if the virtual directory is defined and it points to file directory cgi-bin**
- **test if the virtual directory has the right to execute**
- **test if this ISAPI filter is allowed**
- **restart the IIS**

If you want to use a separate application pool instead of the “DefaultAppPool” then additional settings are required.

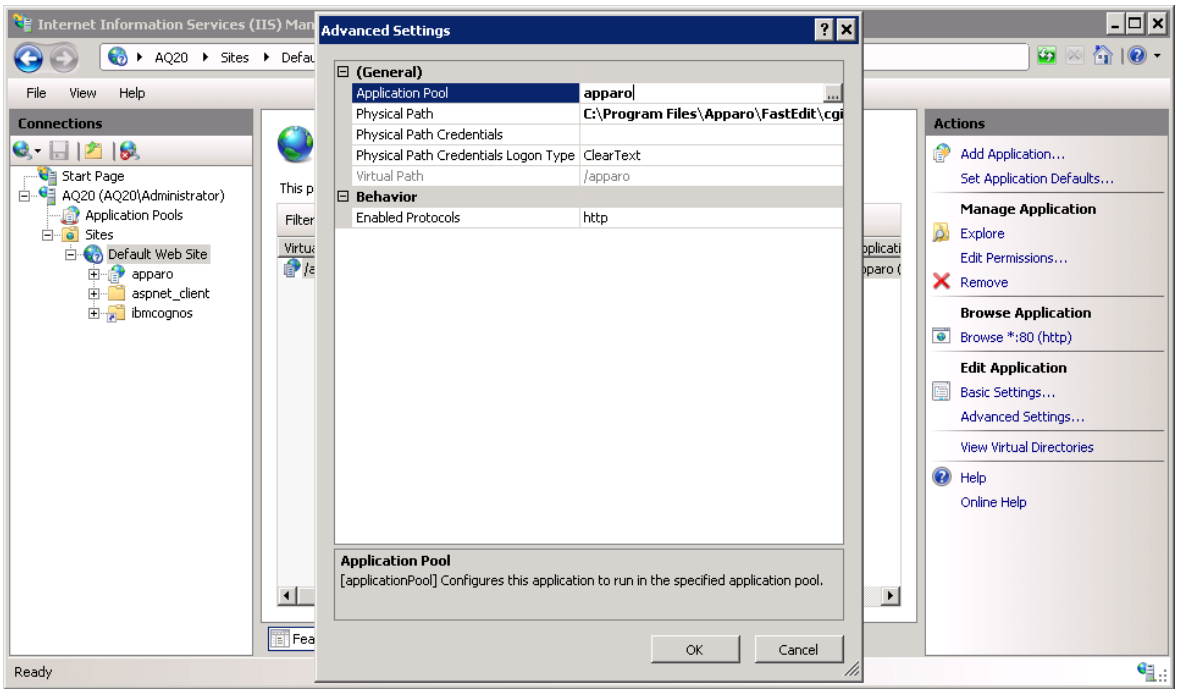


Click with the right mouse button on the virtual directory ‘apparo' and select ‚Convert to Application’





Then select the desired Application Pool with the “Select ...” button.



Hint:

When using 64 Bit Windows, please check the settings of the Application Pool regarding the usage of the 32bit version (Advanced Settings -> Enable 32bit Application).

In case it is set to “true”, please use the file IIS_FastEdit_32bit.dll.

7 Preparation of the QlikView environment

1	**Preparation** Optional: Creation of an **database user** for the Apparo Repository
2	**Installation** Starting setup file for installation of the files
3	**Configuration of the Apparo Application Server** Using Apparo Configuration Manager to configure the installation
4	**Installation Configuration of Microsoft IIS web server** **Installation of the Apparo QlikView Extensions**
5	**Installing clients**

7.1 Storing the Apparo QlikView Extensions into QlikView Server and QlikView Desktop:

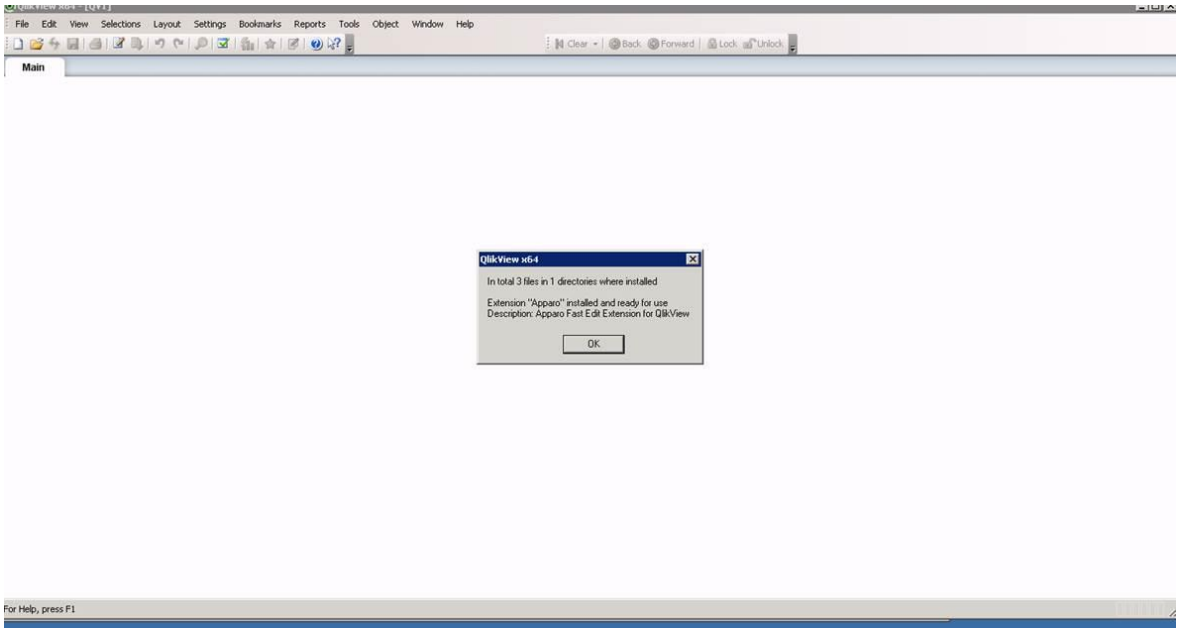
Open Windows Explorer and go into directory folder of the **Apparo Gateway:**

[APPARO_HOME]\FastEdit\QlikViewExtension

Double click the file

QlikViewExtension.qar

Now you should see:



After that:

Double click the file

ApparoDesignerButton.qar

7.2 Installation of the Apparo QlikView Extensions for QlikView Server

Copy both folders **Apparo and ApparoDesignerButton** of

[APPARO_HOME]\FastEdit\QlikViewExtension

Into

%ProgramData%\QlikTech\QlikViewServer\Extensions\Objects

That means for **Window 2003**:

C:\Documents and Settings\All Users\Application Data\QlikTech\QlikViewServer\Extensions\Objects

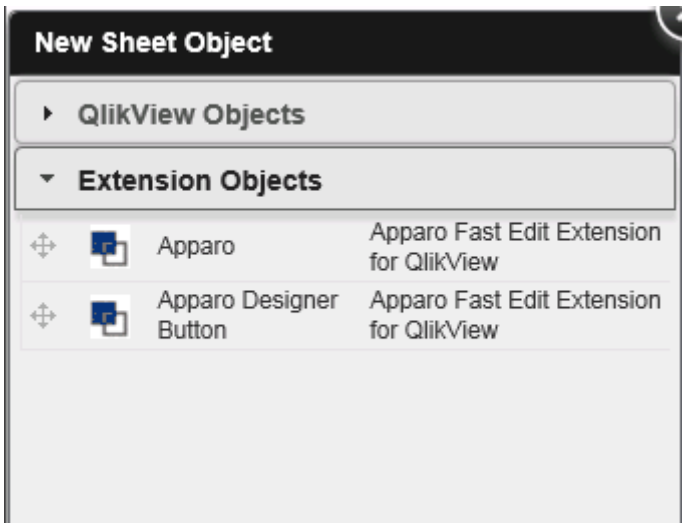
That means for **Window 2008/2012**:

C:\ProgramData\QlikTech\QlikViewServer\Extensions\Objects

If you don't see folder "Extensions" or "Objects" then you must first create these file directories manually.

Now you can start the Apparo Designer by opening QlikView Client and making a new document.

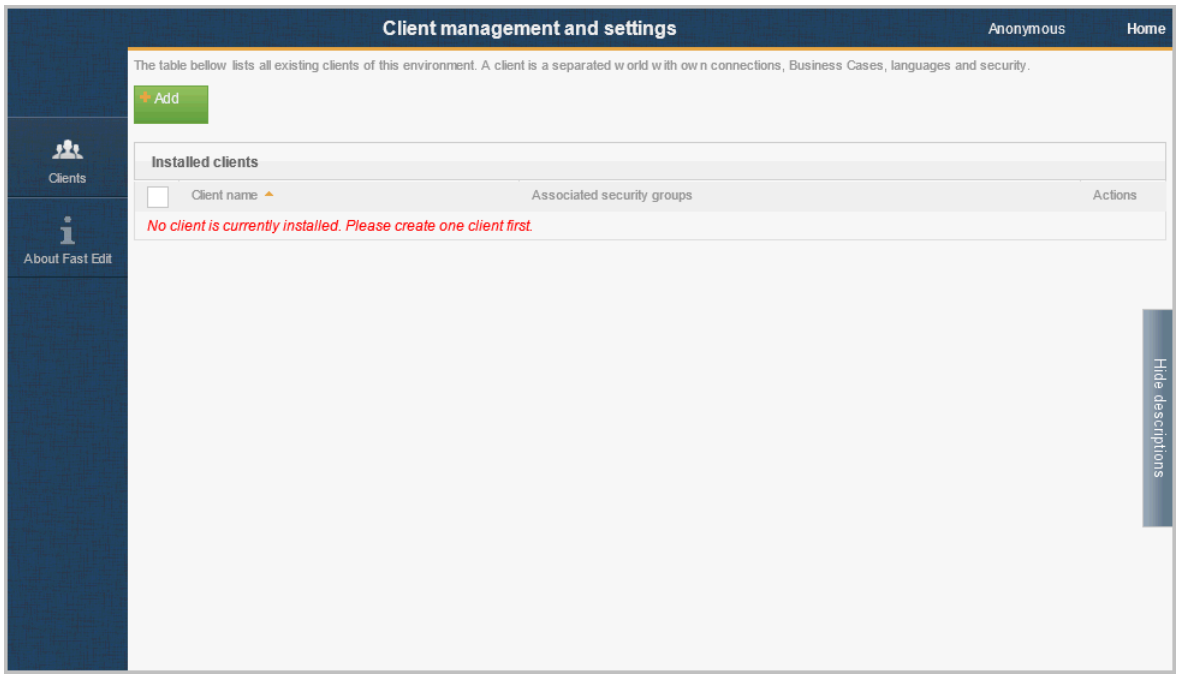
Add new sheet object "Apparo Designer Button" into your document.



You will see this new button:

If you press now the blue button…

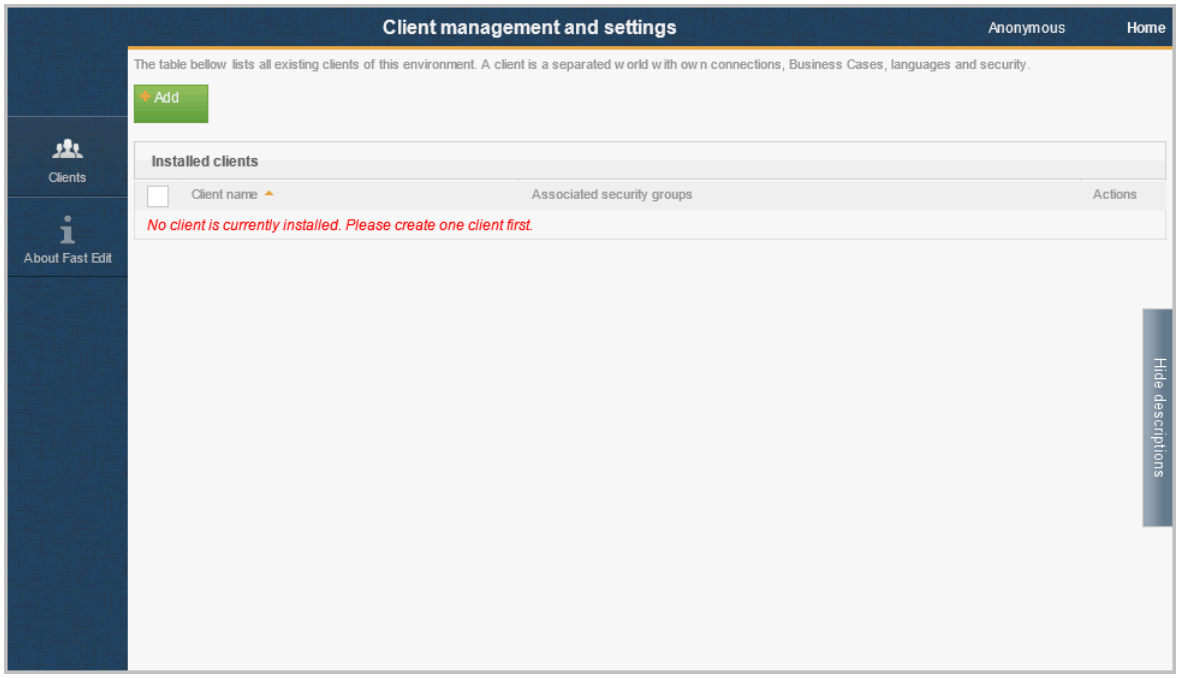
… then you should see in a new tab of the web browser:



8 Installation of clients

1	**Preparation** • Analysing environment • Creation of a **database user** for the Apparo repository • Defining the **QlikView Portal folder** for the Apparo Designer entry • Defining the security group for Apparo Administrators • Defining a new QlikView Portal entry for the Apparo Designer
2	**Installation of all Apparo application servers**
3	**Configuration of all Apparo application servers** Configuration using the Apparo configuration manager
4	**Installation of the Apparo gateway**
5	**Configuration of the Apparo gateway** Configuration using the Apparo configuration manager
6	**Installation Configuration of Microsoft IIS web server** **Installation of the Apparo QlikView Extensions**
7	**Installing clients**

Now it is necessary to install the clients.



Please read now the document "**Configuration Guide**" for defining/importing clients.

The installation & configuration on serverside is now successfully completed.

Please also read the following chapter 'Browser requirements'.

We recommend to read the document "**Training Guide**" for the fundamental usage for the first steps.

You can find all documentations and movies in

Windows Start (left corner) / All Programs / Apparo / Documentation

Movies about Apparo Fast Edit:

http://movies.apparo.solutions

9 Unattended configuration

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

Important: At this time the Apparo Fast Edit application must already run.

The **import program** is stored in the file directory “import”: [APPARO_HOME]\FastEdit\import

Use script **afe-import.bat (**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/KFE. 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.
-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.

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

Sample: **afe-import.bat –f \etc\definition.xml -clientId Samples**

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

Use script **afe-export.bat**

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/KFE. 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

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

Sample: **afe-export.bat –f \etc\definition.xml -clientId DemoClient**

10 Browser requirements

10.1 Supported browsers and versions

Microsoft Internet Explorer 8 (not recommended, execution is slow)
Microsoft Internet Explorer 9
Microsoft Internet Explorer 10
Microsoft Internet Explorer 11

Hint: Compatibility mode for Internet Explorer 8 must be disabled.

Mozilla Firefox (current version)
Google Chrome (current version)
Apple Safari (current version)

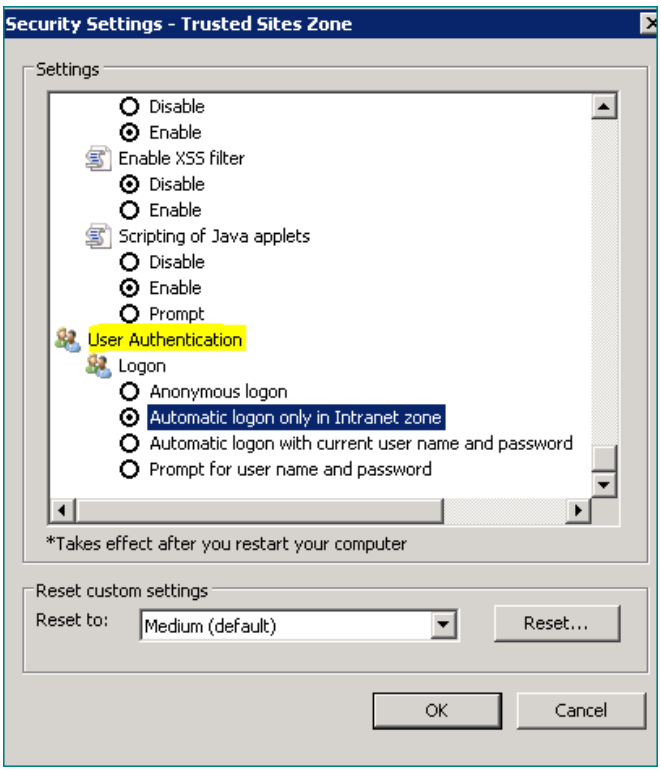
10.2 Supported operating systems for client browsers

Microsoft Windows

10.3 Additional settings for Microsoft Internet Explorer only

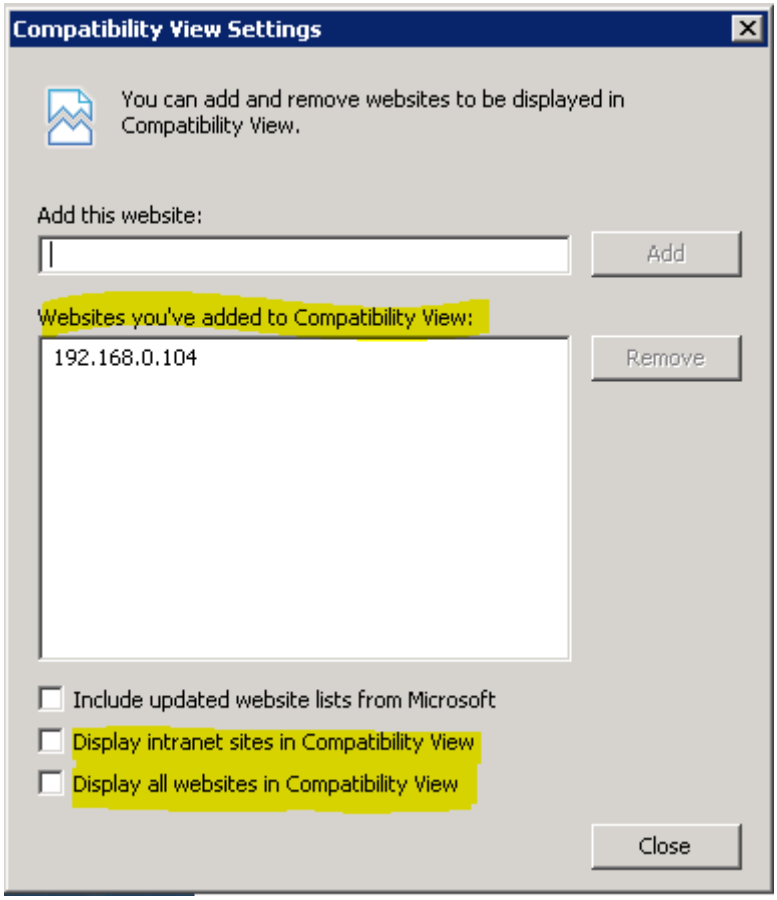
- Domain name of Apparo Fast Edit web server must be in trusted sites
- “about:blank” must be in trusted sites

Settings for Single Sign On (SSO) for standalone versions of Apparo Fast Edit:



Hint: Apparo Fast Edit is not supporting Internet Explorer 7.

Therefore the settings "**Display intranet in Compatibility View**" and "**Display all websites in Compatibility View**" must be **disabled**.



Solution: Placing these domains into the "Websites you've added to Compatibility View" because in this case Apparo Fast Edit can disable the Compatibility View automatically.

10.4 Additional settings for all browsers

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

11 Support

If you need support please write an eMail to:

support@apparo.solutions