

Installation Guide

Apparo Fast Edit

For Microsoft Windows Server

IBM Cognos Analytics

Version 3.3.0.0

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 web servers	4
1.5	Supported Java version	4
1.6	Supported security systems	4
1.7	Supported virtual environments	4
1.8	Installation strategy	6
1.9	Architecture	7
2 Pren	aration	8
2.1	Creation of a database user for the Apparo repository	9
2 Insta	lation of all Apparo application servers	10
5 mstu		10
3.1	License agreement	11
3.2	Selecting the architecture	12
3.3	Defining the start menu folder and target file directory	13
3.4	Carrying out the installation	14
3.5	Installation finish	14
4 Confi	iguration of all Apparo application servers	15
4 Confi 4.1	<i>iguration of all Apparo application servers</i> Architecture	<i>15</i> 19
4 Confi 4.1 4.2	<i>iguration of all Apparo application servers</i> Architecture Application server	15 19 19
4 Confi 4.1 4.2 4.3	iguration of all Apparo application servers Architecture Application server IBM Cognos Analytics	15 19 19 20
4 Confi 4.1 4.2 4.3 4.4	iguration of all Apparo application servers Architecture Application server IBM Cognos Analytics File system paths	15 19 19 20 21
4 Confi 4.1 4.2 4.3 4.4 4.4.1	iguration of all Apparo application servers Architecture Application server IBM Cognos Analytics File system paths File path to batch/executable files	15 19 20 21 21
4 Confi 4.1 4.2 4.3 4.4 4.4.1 4.4.2 4.4.3	iguration of all Apparo application servers Architecture Application server IBM Cognos Analytics File system paths File path to batch/executable files	15 19 20 21 21 21 21
 Confi 4.1 4.2 4.3 4.4 4.4.1 4.4.2 4.4.3 4.4.3 4.4.4 	iguration of all Apparo application servers Architecture. Application server IBM Cognos Analytics. File system paths File path to batch/executable files File path to client definitions File path to custom java classes Oracle Client path to tnsnames.ora	15 19 20 21 21 21 21 21
 4 Confi 4.1 4.2 4.3 4.4.1 4.4.2 4.4.3 4.4.4 4.4.5 	Architecture Application server IBM Cognos Analytics File system paths File path to batch/executable files	15 19 20 21 21 21 21 22
 4 Confi 4.1 4.2 4.3 4.4 4.4.3 4.4.3 4.4.4 4.4.5 4.4.6 	Architecture Application server IBM Cognos Analytics File system paths File path to batch/executable files File path to client definitions File path to custom java classes Oracle Client path to tnsnames.ora Java Keystore path and name Java Keystore password	15 19 20 21 21 21 21 22 22
 4 Confi 4.1 4.2 4.3 4.4 4.4.3 4.4.3 4.4.4 4.4.5 4.4.6 4.5 	Architecture Application server IBM Cognos Analytics File system paths	15 19 20 21 21 21 21 22 22 23
 4 Confi 4.1 4.2 4.3 4.4 4.4.1 4.4.2 4.4.3 4.4.3 4.4.5 4.4.6 4.5 4.6 	iguration of all Apparo application servers Architecture. Application server IBM Cognos Analytics File system paths File path to batch/executable files File path to client definitions File path to custom java classes Oracle Client path to tnsnames.ora Java Keystore path and name Java Keystore password	15 19 20 21 21 21 21 22 22 23 24
 4 Confi 4.1 4.2 4.3 4.4 4.4.1 4.4.2 4.4.3 4.4.3 4.4.5 4.4.6 4.5 4.6 4.7 	iguration of all Apparo application servers Architecture. Application server IBM Cognos Analytics File system paths File path to batch/executable files File path to client definitions File path to custom java classes Oracle Client path to tnsnames.ora Java Keystore path and name Java Keystore password	15 19 20 21 21 21 21 22 22 23 24
 4 Confi 4.1 4.2 4.3 4.4 4.4.1 4.4.2 4.4.3 4.4.4 4.4.5 4.4.6 4.5 4.6 4.7 4.8 	iguration of all Apparo application servers Architecture	15 19 20 21 21 21 21 21 22 22 23 24 24 25
 4 Confi 4.1 4.2 4.3 4.4 4.4.1 4.4.2 4.4.3 4.4.4 4.4.5 4.4.6 4.5 4.6 4.7 4.8 5 Create 	iguration of all Apparo application servers Architecture	15 19 20 21 21 21 21 22 22 23 24 24 24 25 26
 4 Confi 4.1 4.2 4.3 4.4 4.4.1 4.4.2 4.4.3 4.4.3 4.4.4 4.4.5 4.4.6 4.5 4.6 4.7 4.8 5 Creat 6 Insta 	iguration of all Apparo application servers Architecture. Application server. IBM Cognos Analytics. File system paths File path to batch/executable files File path to client definitions File path to custom java classes Oracle Client path to tnsnames.ora Java Keystore path and name Java Keystore password Web security system Mail security system License key Ling the Apparo Designer entry in IBM Cognos portal Illation of the Apparo gateway	15 19 20 21 21 21 21 22 22 22 23 24 24 24 24 25 26 31
 4 Confi 4.1 4.2 4.3 4.4 4.4.1 4.4.2 4.4.3 4.4.3 4.4.5 4.4.6 4.5 4.6 4.7 4.8 5 Creat 6 Instat 6.1 	iguration of all Apparo application servers Architecture. Application server. IBM Cognos Analytics. File system paths File path to batch/executable files File path to client definitions File path to client definitions File path to custom java classes Oracle Client path to tnsnames.ora Java Keystore path and name Java Keystore password Web security system Mail security system License key License agreement	15 19 20 21 21 21 21 21 22 22 23 24 24 24 24 24 24 24 23 24 23 24 23
 4 Confi 4.1 4.2 4.3 4.4 4.4.1 4.4.2 4.4.3 4.4.4 4.4.5 4.4.6 4.5 4.6 4.7 4.8 5 Creat 6 Insta 6.1 6.2 	iguration of all Apparo application serversArchitectureApplication serverApplication server	15 19 20 21 21 21 21 22 22 23 24 24 24 24 25 26 31 33 33
 4 Confi 4.1 4.2 4.3 4.4 4.4.1 4.4.2 4.4.3 4.4.4 4.4.5 4.4.6 4.5 4.6 4.7 4.8 5 Creat 6.1 6.1 6.2 6.3 	iguration of all Apparo application serversArchitectureApplication serverApplication of application of the Apparo gateway	15 19 20 21 21 21 21 21 22 22 23 24 24 24 24 24 25 26 31 33 33 33



6.4	Carrying out the installation	35
6.5	Installation finish	35
7 Conj	figuration of the Apparo gateway	36
7.1	Architecture	39
7.2	Apparo gateway	39
7.3	Application Server	40
7.4	IBM Cognos Analytics	40
7.5 7.5.1 7.5.2	Configuration of the Microsoft Internet Information Server (IIS) 7 and higher Make configuration of IIS using script Make configuration of IIS manually	 41 45 46
7.6	Configuration of the Apache 2.4 web server	63
7.7	Configuration of IHS (IBM web server)	65
8 Insta	allation of clients	67
9 Conj	figuration Manager using command line	70
10 Im	nport/Export definitions using command line	71
10.1	Exporting definitions	
10.2	Importing definitions	72
11 TL	S/SSL in a Cognos environment	73
12 Su	ipport	74



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

• Windows 2008-2022 (64 bit only)

1.3 Supported IBM Cognos Analytics versions

• All IBM Cognos Analytics 11 versions (with Cognos Gateway architecture only)

1.4 Supported web servers

- MS Internet Information Server (IIS) version 7.0 and higher
- Apache 2.4
- IBM Web server (IHS)

1.5 Supported Java version

- OpenJDK 11 (already in setup included)
- Oracle Java 11

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
- VMware Player
- VMs of AWS, Azure



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



1.8 Installation strategy

Following steps are necessary in this order:

0	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:

Single Instance, your existing IBM Cognos Analytics environment is installed on 1 one computer only - that's suitable for testing too. A "Single Instance" is useful for small Cognos environments or test systems. Multi Instance, one or more 2 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

0	 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

0	 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
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7	Installing clients



Start the Installation by starting the file

FastEdit3.3.0.x.yyy_windows_tomcat_cognos_analytics.exe

🐁 Setup - Apparo Fast Edit		— C) ×
Welcome to the Apparo Fast Edit Setup Wizard			
This will install Apparo Fast Edit on your computer. The installation.	wizard will lead you step l	by step thr	ough the
Click Next to continue, or Cancel to exit Setup.			
You can see a helpful installation movie on youtu	be with <u>clicking here.</u>		
Apparo			
	Ne	ext >	Cancel

Confirm the beginning of the installation by clicking "Next".

3.1 License agreement

🛃 Setup - Apparo Fast Edit		-		×
License Agreement Please read the following important information before continuing.	NPPA) DU	СТЗ
Please read the following License Agreement. You must accept th continuing with the installation.	ne terms of t	nis agreem	ent befo	re
Copyright © Apparo Sueddeutschland GmbH				^
CONTENTS: This software product ("Software") consists of trade property belonging to, or licensed by, Apparo Süddeutschland Gr ("Medium") and related user documentation ("Related Document TITLE: Ownership of the Software and any related trademark, tr and will remain, the exclusive property of Apparo Süddeutschland	e secrets and nbH, residing tation"). ade secret o d GmbH and	intellectu on this m r copyright its licenso	al edium tare, rs.	*
 I accept the agreement 				
\bigcirc I do not accept the agreement				
Apparo				
	< Back	Next >	Ca	incel

Read and confirm the license agreement by clicking "Next".



3.2 Selecting the architecture



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

🛃 Setup - Apparo Fast Edit		17 <u></u> 7		Х
Select Apparo Fast Edit module for installation	App) Odu	CTS
Apparo Fast Edit contains 2 different modules:				
The "Apparo Gateway" must be installed parallel to the IE That means the IBM Cognos Analytics environment must	BM Cognos Gatewa already use the IBI	ay. M Cognos G	ateway.	
The "Apparo Application Server" can be installed on diffe	erent servers for b	etter load ba	alancing.	
\bigcirc Apparo Gateway parallel to the existing (Cognos Gatewa	ay		
Apparo Application Server				
Apparo				

Please select "Apparo Application Server " and choose "Next>".



3.3 Defining the start menu folder and target file	e directory
--	-------------



📱 Setup - Apparo Fast Edit	- 🗆 X
Select Destination Directory Where should Apparo Fast Edit be installed?	Apparo [®] Products
Select the folder where you would like Apparo Fast Edit to be i	nstalled, then dick Next.
C:\Program Files\Apparo	Browse
Required disk space: 1,978 MB Free disk space: 5,845 MB	
Apparo	< Back Next > Cancel

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**.

🔹 Setup - Apparo Fast Edit		—		×
Installing Please wait while Setup installs Apparo Fast Edit on your computer.	Appa			Стя
Extracting files tomcat/webapps/KFE/WEB-INF/faces-navigation.xml				
Apparo				
			C	ancel

3.5 Installation finish

🛃 Setup - Apparo Fast Edit	– 🗆 X
	Completing the Apparo Fast Edit Setup Wizard
	Setup has finished installing Apparo Fast Edit on your computer. The application may be launched by selecting the installed icons. Click Finish to exit Setup. After this installation it is necessary to configurate this installation with the Apparo Configuration Manager. You can see a helpful installation & configuration movie on youtube with clicking here.
	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

0	 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.

Apparo Configuration Manag	er 3.755		-	×
File Windows Services				
🗄 🔚 Save 💿 Test Configurat	on 🔇 Start Apparo 🕕 Show Application server Log			
Configuration	Name	Value		
 Architecture Application server IBM Cognos Analytics File system paths Web security system eMail security system Repository License key 	Architecture type	Multi instance / Application server (IBM Cognos Analytics)		
	Welcome to the Apparo Configuration Manager! With this tool you can make the configuration of an alrea You can run the Configuration Manager directly after ins if you select the Configuration Manager entry in the start	ady installed Apparo Fast Edit. tallation or menu.		^
	Save button: Saving your settings into configuration_32.xml file Test Configuration button: Testing all settings - You will get a success message o a list of errors after the tests are finished. Start Annaro Edit button:	r		~

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:

0	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:
	2023-11-07 02:37:41,831 INFO com
	······································
	+ Apparo Fast Edit 3.3.0.y (Build nnn) was successfully started at 07.11.2023 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.

Output:

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

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 Apparo architecture. This architecture was defined at installation time and is not changeable now.

Apparo Configuration Manager File Windows Services	er 3.755	-	×
🔛 Save 💿 Test Configurati	on 🜔 Start Apparo 🕕 Show Application server Lo	a de la companya de l	
Configuration Configuration Configuration Configuration Configuration File system paths Configuration Configuratio	Name Architecture type	Value Multi instance / Application server (IBM Cognos Analytics)	
	Welcome to the Apparo Configuration Manager! With this tool you can make the configuration of an ai You can un the Configuration Manager directly after if you select the Configuration Manager entry in the s Save buttor: Saving your settings into configuration_32.xml file Test Configuration buttor: Testing all settings - You will get a success message a list of errors after the tests are finished. Creat Secons Charlest under	ready installed Apparo Fast Edit. nstallation or art menu. e or	

4.2 Application server

Settings for the application server:

Apparo Configuration Manag	jer 3.755		-	×
File Windows Services				
🔡 Save 💿 Test Configurat	ion 🔇 Start Apparo 🕕 Show Application server Log			
E Configuration	Name	Value		
Architecture	Hostname	supp-ca-afe32.sad.com		
Application server	Tomcat start port	18000		
IBM Cognos Analytics	Tomcat connector port	9800		
File system paths	Server id	1		
Web security system	Apparo URL Folder	apparo		
🗐 eMail security system	Logging Level	Normal		
Repository	Show error messages	yes		
ill License key	Filter away Javascript commands from user input (XSS)	no		
	Maximum main memory usage in MB	2048		
	Windows service user name	<use default="" system="" the="" user="" windows=""></use>		
	Windows service user password	<use default="" system="" the="" user="" windows=""></use>		
	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 define="" here="" setting="" this="" to=""></click>		
	Each Apparo installation has at least 1 application serve That's a Apache Tomcat installation that is communicat	и. ng directly with the Apparo Gateway.		

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 environment:

n Apparo Configuration Manager 3.755			-	×	
File Windows Services					
🔡 Save 🌀 Test Configurati	ion 🚺 Start Apparo 🕕 Show Applica	tion server Log			
E Configuration	Name		Value		
Architecture	Cognos Analytics version	IBM Cogn	nos Analytics 11		
Application server	Cognos Analytics internal dispatcher U	RL http://sup	p-ca-afe32.sad.com:9300/p2p	d/servlet/dispatch	
IBM Cognos Analytics	Cognos Analytics Gateway URL	libmcogn	os/bi/v1		
ill File system paths	Cognos Analytics Gateway home direc	c:\Program	m Files\ibm\cognos\analytics		select
ill Web security system					
ill eMail security system					
Repository					
License key					
		Create Apparo Designer	entry into IBM Cognos Portal		
	All definitions for your already installed	and running IBM Cognos Ar	nalytics 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.

🗁 Configuration	Name	Value	
🗐 Architecture	File path to batch/executeable files	/usr/local/Apparo/FastEdit/user_scripts	select
Application server	File path to client definitions	/usr/local/Apparo/FastEdit/clients	select
📒 File system paths	File path to custom java classes	/usr/local/Apparo/FastEdit/user_scripts	select
🗐 Web security system	Oracle Client path to tnsnames.ora	\$ORACLE_HOME/network/admin	select
📒 eMail security system	Java Keystore path and name	/usr/lib/jvm/java-1.8.0/jre/lib/security/cacerts	select
🗐 Repository	Java Keystore password	***	
🖆 License key			
	5 5		
	The file system paths are used for executing of s	scripts and java testing classes.	

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 thsnames.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

You can import your certificate with following command. In this example Apparo is installed in "C:\Program Files\Apparo", the certificate file has the name "C:\myCertificate.crt" and the default password of the key store is "changeit".

"C:\Program Files\Apparo\FastEdit\OpenJDK\bin\keytool" -importcert -file C:\myCertificate.crt -alias my.company.com -keystore " C:\Program Files\Apparo\FastEdit\OpenJDK\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

Configuration	Name	Value
Architecture	Web security groups for administrators	<click define="" here="" setting="" this="" to=""></click>
Application server		
IBM Cognos Analytics		
File system paths		
📒 Web security system		
eMail security system		
Repository		
License key		

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**.

Apparo has access to the Cognos Analytics security system and therefore knowing all groups.



4.6 Mail security system

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

Apparo Configuration Manager 3.755					×
File Windows Services					
🔡 Save 💿 Test Configurati	ion 🚺 Start Apparo 🕕 Show Application ser	verLog			
Seconfiguration	Name		Value		
Architecture	eMail security system	None			
Application server					
IBM Cognos Analytics					
🗐 File system paths					
🗐 Web security system					
📒 eMail security system					
Repository					
📶 License key					
	Security settings for verifying security groups u	sed by eMail Import Business Cases.			
	If there is a web security system specified, it w	ill be used for the eMail security.			
	macmeans all Excerimport Business Cases	(EIBC) can use this security system only.			
	All other Business Case types are using not the	e security system that is defined here.			

4.7 Repository

The database connection to the Apparo repository:

💀 Apparo Configuration Manager 3.755					\times
File Windows Services					
🗟 🔚 Save 🌀 Test Configurati	on 🚯 Start Apparo 🕕 Show Application server Log				
E Configuration	Name	Val	lue		
Architecture	Database connection	Internal database			
Application server					
IBM Cognos Analytics					
Web security system					
eMail security system					
Repository					
License key					
	The Apparo Repository is necessary to store all of your all database connections and so on.	definitions, all business cases,			Â
	The repository contains many database tables. These objects are created automatically after first progr	am start.			
	Before Apparo ist starting the first time the suitable data all necessary rights must be already existing.	abase user with			
	The creation of this user must be done manually.				
	Therefore it's necessary to define this database user for	r the repository now.			
	rou can find a PDF document "Database preparation" i	n the setup file.			~



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

0	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:

Apparo Configuration Manag	ger 3.755		— C	×
Save () Test Configurat	ion 🜔 Start Apparo 🕕 Show Applica	tion server Log		
Configuration	Name	Value		
Architecture	Cognos Analytics version	IBM Cognos Analytics 11		
Application server	Cognos Analytics internal dispatcher U	RL http://supp-ca-afe32.sad.com:9300/p2pd	d/servlet/dispatch	
IBM Cognos Analytics	Cognos Analytics Gateway URL	/ibmcognos/bi/v1		
File system paths	Cognos Analytics Gateway home direct	c:\Program Files\ibm\cognos\analytics		select
📹 Web security system				
📹 eMail security system				
Repository				
License key				
		Create Apparo Designer entry into IBM Cognos Portal		
	All definitions for your already installed	and running IBM Cognos Analytics environment.		

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

Please take the "Namespace ID":

Explorer	AD - Namespace - Resource Prope	erties
Local Configuration	Name	Value
🖨 🔚 Environment	Туре	Active Directory
Configuration Group	* Namespace ID	ID_Name
🖨 🕼 Logging	* Host and port	hostname:portnumbe
File	Time out in seconds	-1
🖨 🛅 IBM Cognos services	Size limit	-1
IBM Cognos	Binding credentials	**********
Portal Services	Application Tier Components sAMAcco	
- E Security	DQM Service Principal Name	
- C Authentication	Multitenancy	
Cognos	Tenant ID Mapping	
AD AD	Tenant Bounding Set Mapping	
Cryptography	* Selectable for authentication?	True



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

Create Apparo Designer entry into IBM Cognos Portal		
Ente	er your credentials for IBM Cognos Analytics	
Namespace ID	AD	
Login	Administrator	
Password	•••••	
	ОК Са	ncel



 \times Create Apparo Designer entry into IBM Cognos Portal Select portal folder in that the new entry must be stored Available Cognos Analytics folders 늘 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

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

You can see this new entry in the Cognos portal:

O Search	Apparo Fast Edit	+	All content
My content	Name ^	Modified	Owner
🗔 Team content 🍥	P Apparo Designer	2.6.2016	Unknown
Recent	subfolder	3.6.2016	Anonym



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:

Create URL			
Specify a name and URL. C and screen tip.	Optionally,	specify a	description
Name Apparo Designer			
Description			
Add a description			
Screen tip			
Add a screen tip			
URL /ibmcognos/bi/v1/apparoE)esigner.h	tml	
	١	/iew acce	ptable domains
Location			
Team content > Apparo			
	C	Ж	Cancel

Press OK button.



6 Installation of the Apparo gateway

0	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
	Apparo Configuration Manager
7	Installing clients



Start the Installation by executing the file:

FastEdit3.3.0.x.yyy_windows_tomcat_cognos_analytics.exe



Confirm the beginning of the installation by clicking "Next".



6.1 License agreement

9 Setup - Apparo Fast Edit		_ 🗆 ×
License Agreement Please read the following important information before continuing.	APPARO	
Please read the following License Agreement. You must a continuing with the installation.	accept the terms of this agreement befo	ore
Copyright © Apparo Sueddeutschland GmbH CONTENTS: This software product ("Software") consist property belonging to, or licensed by, Apparo Süddeuts ("Medium") and related user documentation ("Related D TITLE: Ownership of the Software and any related trac and will remain, the exclusive property of Apparo Südde	s of trade secrets and intellectual chland GmbH, residing on this medium ocumentation"). demark, trade secret or copyright are, autschland GmbH and its licensors.	×
I accept the agreement I do not accept the agreement	< Back Next >	Cancel

6.2 Architecture

🍨 Setup - Apparo Fast Edit	
Select your planned architecture	
Do you have a small IBM Cognos environment or a Cognos Gateways or Cognos Dispatchers?	distributed environment with many
O Single Instance	
Complete IBM Cognos environment is stored on Cognos Gateway and one IBM Cognos Dispatch	one single host with one IBM er
Multi Instance	
An IBM Cognos environment with more than one Cognos Dispatcher	IBM Cognos Gateway or one IBM
Apparo	
	<pre></pre>

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

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



🛃 Setup - Apparo Fast Edit		
Select Apparo Fast Edit module for installation	Apparo [®] Products	
Apparo Fast Edit contains 2 different modules:		
The "Apparo Gateway" must be installed parallel to the That means the IBM Cognos Analytics environment mus	IBM Cognos Gateway. st already use the IBM Cognos Gateway.	
The "Apparo Application Server" can be installed on different servers for better load balancing.		
Apparo Gateway parallel to the existing	Cognos Gateway	
C Apparo Application Server		
(pp.)ro		
טופקלא	< Back Next > Cancel	

Select Apparo Gateway and choose "Next>".

6.3 Defining the target file directory

🖶 Setup - Apparo Fast Edit	
Select Destination Directory Where should Apparo Fast Edit be installed?	
Select the folder where you would like Apparo Fast Edit to	be installed, then click Next.
Destination directory	
C:\Program Hiles\Apparo	Browse
Required disk space: 255.3 MB	
Free disk space: 18,784 MB	
Apparo	
	<pre></pre>

The default path is

C:\Program Files\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. c:\Program Files\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**.

💀 Setup - Apparo Fast Edit	
Installing Please wait while Setup installs Apparo Fast Edit on your computer.	
Extracting files jdk\jre\lib\zi\Europe\Berlin	
Apparo	Cancel

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 <u>successfully finished</u> and the application servers are already running with pressing Button "<u>Start Apparo</u>".

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

🔁 Apparo Configuration Manag	er 3.755		-	×
File				
🗄 🔚 Save 🚺 Deploy Configur	ation			
Configuration	Name	Value		
 Architecture Apparo gateway Application servers IBM Cognos Analytics 	Architecture type	Multi instance / Gateway (IBM Cognos Analytics)		
	Welcome to the Apparo Configuration Manager! With this tool you can make the configuration of an a Save button: Saving your settings into configuration_32.xml file "Deploy Configuration" button: Deploying Configuration	ready 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:



Press the "Deploy Configuration" button for deploying.



2

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.

Apparo Configuration Manag File	er 3.755		-	×
🔛 Save 🚺 Deploy Configu	ration			
Configuration Configuration Actilicature Apparo gateway Application servers IBM Cognos Analytics	Name Architecture type	Value Multi Instance / Cateway (IBM Cognos Analytics)		
	Welcome to the Apparo Configuration Manager! With this tool you can make the configuration of an alrea Save button: Saving your settings into configuration_32.xml file "Deploy Configuration" button: Deploying Configuration	dy installed Apparo Fast Edit.		

7.2 Apparo gateway

Apparo Configuration Manage	er 3.755			-	×
File					
🗄 📓 Save 🚺 Deploy Configur	ation				
Seconfiguration	Name		Value		
Architecture	Apparo URL Folder	apparo			
🚪 Apparo gateway					
Application servers					
IBM Cognos Analytics					



7.3 Application Server

File	on Name											
: 📷 Save 😈 Deploy Configuration	Name		Save O Deploy Configuration									
	Name											
Condiguration Acplication servers BM Cognos Analytics	Communication port s1	supp-ca-afe32 sad com 9800	Yalue									
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Each Apparo application server has * an unique server id (1.2.3n) * an application server host name * a communication port (default 9000) The Apparo Gateway is responsible to transport the requ to an application server. Therefore it must know all appli Syntax: s <server id=""> <application host="" name="" server=""><c Example: s1 hostname.9810</c </application></server>	est from the web server alion servers. ommunication port>				~						

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

File	-			
📓 Save 🔘 Deploy Configu	Iration			
Configuration	Name	Value		
Architecture	Cognos Analytics version	IBM Cognos Analytics 11		
🗐 Apparo gateway	Cognos Analytics Gateway home directory	c:\Program Files\ibm\cognos\analytics		selec
Application serves Bit Cognos Analytics				
	All definitions for your already installed and running IB	M Cognos Analytics environment.		

The last step is to save and deploy the configuration.



7.5 Configuration of the Microsoft Internet Information Server (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:

a	Se	_ D X		
🔵 💽 🔹 💜 Dashba	bard	- 闭 🍢 Manage	Tools View Help	
Dashboard	WELCOME TO SERVE	R MANAGER		^
 Local Server All Servers AD DS 		1 Configure this local serv	/er	
File and Storage Services ▷	QUICK START	2 Add roles and features		=
		3 Add other servers to mana	ige	=
	WHAT'S NEW	4 Create a server group		
	LEARN MORE	5 Connect this server to clou	Id services Hide	
	ROLES AND SERVER	GROUPS		
	Roles: 3 Server groups	: 1 Servers total: 1		
	AD DS	1 File and Storage Services	1	
	 Manageability 	Manageability		
	Events	Events		
	Services	Performance		
	Performance	BPA results		
	BPA results			
				~



2	Add Roles and Features Wizard		_ _ X
Select server roles			DESTINATION SERVER aq21.app2.com
Before You Begin Installation Type Server Selection Server Rolas Features Confirmation Results	Select one or more roles to install on the selected server. Roles Remote Access Remote Access Remote Desktop Services Volume Activation Services Volume Activation Services Volume Activation Services Common HTTP Features (4 of 6 installed) B Common HTTP Features (4 of 6 installed) B Realth and Diagnostics (1 of 6 installed) B Reformance (1 of 2 installed) B Reformance (1 of 2 installed) B Reformance (1 of 9 in	< >	Description Application Development provides infrastructure for developing and hosting Web applications. Use these features to reade Web content or extend the functionality of IIS. These technologies typically provide a way to perform dynamic output, which IIS then sends to fulfill client requests.
	K	Previous	Next > Install Cancel

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

Please enable in chapter "Security" the feature "Windows Authentication":

b	Add Roles and Features Wizard	_ D X
ESELECT SERVER FOLSS Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	Add Roles and Features Wizard Select one or more roles to install on the selected server. Roles 	DESTINATION SERVER aq21.app2.com
	< Previous Next :	> Install Cancel

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
4	Defining a new rule in Rewrite URL feature

Important

Before starting of the IIS configuration it is important that the configuration with the Apparo Configuration Manager is successfully finished and the application server has already started with the button "Start Apparo".

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

http://movies.apparo.solutions



You can choose between 2 different installation possibilities:

- 1. Using a script that is making all configuration steps for the IIS **automatically.** This is the normal way.
- 2. Making the configuration steps manually



7.5.1 Make configuration of IIS using script

Open File Explorer and go into file directory

[APPARO HOME]\FastEdit\cm

Run the script "**MakeConfigurationIIS.bat**" as Administrator.

It is using default settings, like ibmcognos for the virtual directory for Cognos Analytics and Default Web Site for the web site name.

If necessary then you can change these settings in the script.

After execution of this batch the installation of the Apparo gateway is successfully finished.



7.5.2 Make configuration of IIS manually

If you want to make the configuration manually then please follow following steps. If you want to use the script-way then please read the chapter before.



You can use an own Application Pool or the DefaultAppPool for Apparo Fast Edit.

You must use the same Application Pool for Cognos, Apparo and Default Website.

Please analyze the settings of the "DefaultAppPool" Application Pool first and select in the "Application Pool" folder the "DefaultAppPool" entry:

File View Help								
Connections	Applicatio	n Doola					Acti	ons
Start Page AQ16 (AQ16\Administrator) Application Pools application Pools application Pools	s page lets you view a sociated with worker p plications.	and manage l rocesses, co	the list of applica ntain one or mor	tion pools on the ser e applications, and p	ver. Application pools are rovide isolation among dil	fferent		Add Application Pool Set Application Pool Defaults Application Pool Tasks
E Server Farms	ter:	- 89	Go 👻 🥁 Show	All Group by: No	Grouping	-		Ston
Na	ame 🔺	Status	.NET Frame	Managed Pipeli	Identity	Applica	2	Recycle
	ASP.NET v4.0 ASP.NET v4.0 Cl	Started Started	v4.0 v4.0	Integrated Classic	ApplicationPoolIden ApplicationPoolIden	0		Edit Application Pool
	Classic .NET App	Started Started	v2.0	Classic Integrated	ApplicationPoolIden	0		Basic Settings Recycling
	DefaultAppPool	Started	v2.0	Integrated	ApplicationPoolIden	0		Advanced Settings
								Rename
							×	Remove
								View Applications
							0	Help
								Online Help



Press now the "Advanced Settings ..." entry on right page:

	(General)		-
	.NET Framework Version	v2.0	
	Enable 32-Bit Applications	False	
	Managed Pipeline Mode	Integrated	
	Name	DefaultAppPool	
	Queue Length	1000	
	Start Automatically	True	
Ξ	CPU		
	Limit	0	
	Limit Action	NoAction	
	Limit Interval (minutes)	5	
	Processor Affinity Enabled	False	
	Processor Affinity Mask	4294967295	
Ξ	Process Model		
	Identity	ApplicationPoolIdentity	
	Idle Time-out (minutes)	20	
	Load User Profile	False	
	Maximum Worker Processes	1	
	Ping Enabled	True	
	Ping Maximum Response Time (second	90	
	Ping Period (seconds)	30	
	Shutdown Time Limit (seconds)	90	
	Charles The Alter & Control of States	00	•

Please check the setting "Enable 32-Bit Applications". It must be "false".

Next step:

Open the IIS console:

Number Information Services (IIS)) Manager	
G Sites ► AQ18 ► Sites ►		🖬 🖂 🔂 🖬 🕢 🕶
<u>File V</u> iew <u>H</u> elp		
Connections Connections Start Page AQ18 (AQ18)Administrator) Application Pools Connections Application Pools Connections Application Pools Connections Connections Application Pools Connections Connect	Sites	Actions Add Web Site Set Web Site Defaults Help Online Help Online Help
кеаду		*1 .:

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



Add Virtual Directory	? ×
Site name: Default Web Site Path: /	
Alias:	
apparo	
Example: images	
Physical path:	
C:\Program Files\Apparo\FastEdit\cgi-bin	
Pass-through authentication	
Connect as Test Settings	
OK Cancel	

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

Press "**OK**"

Nanager 📃 🛛 🗶			
😋 💽 📝 🕨 AQ18 🔸 Sites	▶ Default Web Site ▶ apparo ▶	😰 🖂 🕼 🗸	
Eile <u>V</u> iew <u>H</u> elp			
Connections	apparo Home Group by: Area Group by: Area Image: Colspan="2">Image: Colspan="2">Image: Colspan="2">Image: Colspan="2" Interview of the colspan="2" (Colspan="2") Authentication CGI Compression Default Default Document Image: Colspan="2">Image: Colspan="2">Image: Colspan="2">Image: Colspan="2" Image: Colspan="2">Image: Colspan="2"	Actions Explore Edt Permissions Basic Settings Manage Virtual Directory Browse Virtual Directory Browse Virtual Directory Advanced Settings Help Online Help Online Help	
Ready		1 .:	



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".

Edit Feature Permissions	? ×
Permissions:	
✓ <u>R</u> ead	
Script	
Execute	
OK Cance	*

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:

Add Module Mapping 🔋 🔀
Request path:
*.dl
Example: *.bas. wsvc.axd
Module
Executable (optional):
C:\Program Files\Apparo\FastEdit\cgi-bin\IIS_fastedit.dll
·
Name:
apparo
Request Restrictions

"Executable" must contain the valid path to the used ISAPI file IIS_fastedit.dll.

Now press "Ok" and



then "**Yes**".



2 Allowing ISAPI filter

Click the server name entry (important!)

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





Nation Services (I	(5) Manager			
				🗾 🖬 🛛 🟠 I 🖉 🕶
<u>Eile View H</u> elp				
Connections	Use this feature to can run on the We Group by: No Ga Description A cognos	I and CGI Res ospecify the ISAPI an observer. rouping Restriction Allowed	d CGI extensions that Path C:\Program Files\cc	Actions Add Edit Feature Settings P Help Online Help
Configuration Torobert and statuted	Features View	Content View	×	

Press "Add..." and input:

Add ISAPI or CGI Restriction ? 🗙
ISAPI or CGI path:
C:\Program Files\Apparo\FastEdit\cgi-bin\IIS_fastedit.dll
Description:
apparo
Allow extension path to execute
OK Cancel

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



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

Nanager _ 🗆 🗙 🖄 I 🕐 🗸 G S AQ18 ► Sites ► Default Web Site ► 67 <u>F</u>ile ⊻iew <u>H</u>elp Connections Acti Default Web Site Home 😪 - 🔒 🖄 😹 ٠ Open Feature Start Page AQ18 (AQ18\Administrator) -칠 Explore Group by: Area Edit Permissions. Application Pools IIS . Edit Site Ð ~ CGI ← 🔁 cognos8 Ø Bindings.. Authentication CGI Default Document Basic Settings. Compression View Applications View Virtual Directories 2 10 404 Handler Mappings Manage Web Site (~) HTTP Redirect Directory Browsing Error Pages 💈 Restart Start 0 1 **}** Stop HTTP Respo... ISAPI Filters Logging MIME Types Browse Web Site Browse *:80 (http) 9 • Advanced Settings. SSL Se Specify requirements for SSL and client certificates. Modules Output Limits... 🗊 Features View / Content View Help • Ready

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

Press "Add ... "

Add ISAPI Filter	? ×
Eilter name:	
apparo	
Executable:	
C:\Program Files\Apparo\FastEdit\cgi-bin\IIS_fastedit.dll	
ОК	Cancel

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

Number Information Services (II	5) Manager	
O EV1 Sites Sit	▶ Default Web Site →) 🔤 🖂 🟠 I 😢 👻
File View Help		
Connections	Output Web Site Home Filter: 	Actions Actions Edit Stre Edit Site Bindings Basic Settings View Applications View Applications View Virtual Directories Manage Web Site Start Stop Browse Web Site Browse *180 (http) Advanced Settings Configure Limits Welp Online Help
Ready		€1.:

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

€¥Internet Information Services (IIS) Manager			
G S Sites	▶ Default Web Site ▶		🗾 🖾 🖄 I 🕖 👻
File View Help Connections Start Page Start Page Start Page DEV1 (DEV1/Administrator) Application Pools Start Start Start Page Start Page Start Page Bites Start Page Start Page Start Page How Page Page Start Page How Page Page Start Page Start Page Start Page Start Page Start Page Start Page Start Page	 ▶ Default Web Site ▶ Request Filtering Use this feature to configure filtering rules. ▶ File Name Extensions Rules ▶ File Name Extensions Rules ▶ File Extens ▼ Allowed sa False ascx False ascx False ascr False master False sitemap False config False 	Edit Request Filtering Settings ? × General ✓ Allow unlisted file name extensions ✓ Allow unlisted verbs ✓ Allow unlisted verbs ✓ Allow double escaping Request Limits Maximum allowed content length (Bytes): 30000000 Maximum Query string (Bytes): 2048	Alerts Alerts Alerts Alowed set to False are blocked. No other file name extensions are blocked. Actions Allow File Name Extension Deny File Name Extension Edit Feature Settings @ Help Online Help
	Fabe	OK Cancel	
Configuration: 'Default Web Site' web.com	fig		• 1 .:

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



Defining a new rule in Rewrite URL feature

Select virtual sub folder "bi" in folder "ibmcognos" and double click "URL Rewrite" icon.



Now you should see:

URL Rewrite

Provides rewriting capabilities based on rules for the requested URL address and the content of an HTTP response.

Inbound rules that are applied to the requested URL address:

Name	Input	Match	Pattern
🗉 🚞 Headers	URL path after '/ibmcognos/b	Matches	(.*)
🗉 🚞 SSO Login	URL path after '/ibmcognos/b	Matches	v1/login
🗄 🚞 Legacy SSO	URL path after '/ibmcognos/b	Matches	(v1/disp
🗉 🚞 Reverse Proxy	URL path after '/ibmcognos/b	Matches	(^\$) (^v
🕀 🚞 Event Studio	URL path after '/ibmcognos/b	Matches	^(ags cr
<	ш		>

These rules are for IBM Cognos Analytics. Apparo Fast Edit need a similar rule.



Add a new rule (see right side) and press "Add Rule(s)".

dd Rule(s)		? X
Select a rule template:		
Inbound rules		
🖶 Blank rule	🔀 Rule with rewrite map	
Request blocking		
Inbound and Outbound Rules		
🖄 User-friendly URL	🚳 Reverse Proxy	
Outbound rules		
🔁 Blank rule		
Search Engine Optimization (SEO)		
Enforce lowercase LIRLs	Canonical domain name	-
Select this template to create a rule that will	forward incoming HTTP requests to a back-end Web serv	/er.
	OK	Cancel

Double click "Reverse Proxy".

Enter the current server name and press OK.

Reverse Proxy Rules	?
Inbound Rules	
Enter the server name or the IP address v	where HTTP requests will be forwarded:
servername	
Example: contentserver1	
Enable SSL Offloading	
Selecting this option will forward all HT	ITPS requests over HTTP.
Outbound Rules	
Rewrite the domain names of the links	in HTTP responses
 Responses that are generated by appli have HTTP links that use internal domai external domain names. 	ications that are behind a reverse proxy can in names. These links must be updated to use
From:	
Example: contentserver1	
To:	
	-
Fxample: www.contoso.com	
	OK Cancel

Now you see:



URL Rewrite

Provides rewriting capabilities based on rules for the requested URL address and the content of an HTTP response.

Inbound rules that are applied to the requested URL address:

Name	Input	Match	Pattern
🕀 🚞 Headers	URL path after '/ibmcognos/b	Matches	(.*)
🗉 🚞 SSO Login	URL path after '/ibmcognos/b	Matches	v1/login
🗄 🚞 Legacy SSO	URL path after '/ibmcognos/b	Matches	(v1/disp
🗄 🚞 Reverse Proxy	URL path after '/ibmcognos/b	Matches	(^\$) (^v
🗉 🚞 Event Studio	URL path after '/ibmcognos/b	Matches	^(ags cr
The second seco	URL path after '/ibmcognos/b	Matches	(.*)

Edit now the new rule and enter the yellow marked texts:

Match URL		\bigcirc
Requested URL:	Using:	
Matches the Pattern \sim	Regular Expressions	~
Pattern:		
(apparoDesigner apparoBusinessCase apparoAjax apparoPa	ageModule).html	Test pattern
☑ Ignore case		
Conditions		
contactors		
Server Variables		
Action		•
Action type:		
Rewrite ~		
Action Properties		
Rewrite URL:		
/ibmcognos/{R:1}.html		
Append query string		
Log rewritten URL		
Stop processing of subsequent rules		
ou must enter:		



(apparoDesigner|apparoBusinessCase|apparoAjax|apparoPageModule).html

... and

/ibmcognos/{R:1}.html

Press "Apply" (see right side).

After you have changed this rule it is time to rename this rule. Please rename this rule to "apparoReverseProxy" using "Rename" feature (see right side).

Hint: If you want to use checkboxes in a List in a report then please add apparoTableModule too: (apparoDesigner|apparoBusinessCase|apparoAjax|apparoPageModule|apparoTableModule).html

Change the execution order:

Select the last rule (apparoReverseProxy) and press "Move up" to the top of this list.

Now you see following order:

URL Rewrite

Provides rewriting capabilities based on rules for the requested URL address and the content of an HTTP response.

Inbound rules that are applied to the requested URL address:

Name	Input	Match	Pattern
🗄 🚞 apparoReverseProxyInb	URL path after '/ibmcognos/b	Matches	(apparo[
🕀 🚞 Headers	URL path after '/ibmcognos/b	Matches	(.*)
🗉 🚞 SSO Login	URL path after '/ibmcognos/b	Matches	v1/login
🗉 🚞 Legacy SSO	URL path after '/ibmcognos/b	Matches	(v1/disp
🗄 🚞 Reverse Proxy	URL path after '/ibmcognos/b	Matches	(^\$) (^v
🗉 🚞 Event Studio	URL path after '/ibmcognos/b	Matches	^(ags cr
<			>

It is necessary that the rule for Apparo Fast Edit has **the first position**.



Now the installation of the Apparo gateway is successfully finished.

Checks:

- 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



Using an own Application Pool

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'

Internet Information Ser	Sites 1	 Manager Default Web Site 	 apparo 	F					× • ● ● ● •
File View Help									
Connections				2					Actions
💐 - 🔚 🖄 😣				3					🔉 Explore
Start Page		Filter:		- AM Go - G	Show All I G	roup by: Area		-	Edit Permissions
Application Pools	stor)	ASP.NET		00	1				Basic Settings
E Sites	e	i la			١	F			Manage Virtual Directory
E appart	Explore		NET	.NET Error	.NET	.NET Profile	.NET Roles		Browse *:80 (bttp)
🗄 🚰 ibmcog	Edit Perm	issions	pilation	Pages	Globalization				Edit Virtual Directory
0	Convert	o Application		5	2	9			Advanced Settings
2	Add Appl	ication	E Ucerc	Application	Connection	Machine Key	Pages and		P Help
2	Add Virtu	al Directory	i Osers	Settings	Strings	HIGCHING KOY	Controls		Online Help
	Manage	/irtual Directory							
-	Defrech	893	- 100						
×	Remove		pn State	SMTP E-mail					
(FA	Cusitab to	Contont View	_						
	Switch to	Concent view							
			02	CGI	9				
					. H			<u> </u>	
		Eeatures View	Content	View					
2 2			Call Content	1011					0.
keady									a.



E Internet Information Services (II	(5) Manager	
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File View Help		
Connections Start Page AQ20 (AQ20)Administrator) Application Pools Sites S	apparo Home Filter Add Application Filter Ass Site name: Default Web Site Path: / Alias: Application pool: Authc Apparo DefaultAppPool Select Example: sales Physical path: C:\Program Files\Apparo\Fast Pass-through authentication Application pool: Application pool: Propero Propero Propero Propero OK Cancel OK Cancel	Actions Explore Edit Permissions Basic Settings Manage Virtual Directory Browse Virtual Directory Browse Virtual Directory Browse *:80 (http) Edit Virtual Directory Advanced Settings Online Help
Ready		Na.:

Then select the desired Application Pool with the "Select ..." button.

Internet Information Services (IIS)	Man Ac	lvanced Settings	? >	۹	<u>- 🗆 ×</u>
Car Not	Defau ,				🖸 🐼 🐼 🟠 🛛 🗸
		🗆 (General)			
File View Help		Application Pool	apparo		
Connections		Physical Path	C:\Program Files\Apparo\FastEdit\cgi		Actions
		Physical Path Credentials			0
	<u> </u>	Physical Path Credentials Logon Type	ClearText		Add Application
Start Page	fhis n	Virtual Path	/apparo		Set Application Defaults
AQ20 (AQ20\Administrator)		Behavior			Manage Application
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ibmcognos					Browse Application
_					Browse *:80 (http)
					Edit Application
					Basic Settings
					Advanced Settings
					View Virtual Directories
					Help
					Online Help
	[Application Pool			
	4	[applicationPool] Configures this applicat	ion to run in the specified application pool.		
	<u> </u>				
	Fea				
			OK Cancel		
Ready				///	Sec. 1

The "Default Web Site" must use the same Application Pool (Advanced Settings)

Other applications like Cognos are not affected by the application pool setting of the default web site.



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.



7.6 Configuration of the Apache 2.4 web server

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 (server names are of course different):



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

//fIndoule mod_proxy.c>
 ProxyPass /apparo balancer://ApparoFastEdit/apparo
 ProxyPassReverse /apparo balancer://ApparoFastEdit/apparo
 ProxyIOBufferSize 32768
 </proxy balancer://ApparoFastEdit>
 BalancerMember ajp://ip-172-31-28-181.eu-west-1.compute.internal:9800 route=s1 loadfactor=1
 ProxySet timeout=300
 ProxySet timeout=300
 ProxySet timeout=300
 ProxySet tofailover=0n
 ProxySet nofailover=0n
 ProxySet stickysession=JSESSIONID|jsessionid
 </proxy>
 <location /balancer-manager>
 SetHandler balancer-manager
 </location>

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.



7.7 Configuration of IHS (IBM web server)

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]
```

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:

🔡 Save	© Test Config	guration 🚺 💽 Start Apparo 🕕 🕕 Show Application :		n server Log			
🗁 Configurati	on		Name			Value	
Architec	ture	Hostnam	1e		PEDRO.ms	home.net	
🗌 Applicat	ion server	Tomcat s	tart port		18000		
📶 IBM Cog	gnos Analytics	Using IBI	Using IBM IHS and HTTPS		yes		
File sys	tem paths	Tomcat SSL certificate file		<click here<="" td=""><td>to define this setting></td><td>select</td></click>	to define this setting>	select	
👘 Web se	curity system	Tomcat SSL certificate key file		<click here<="" td=""><td>to define this setting></td><td>select</td></click>	to define this setting>	select	
🛑 eMail se	ecurity system	Server id		1			
Reposit	огу	Apparo U	Apparo URL Folder		apparo		
License	key	Logging l	_evel		Normal		
		Show err	or messages		yes		
		Filter awa	y Javascript command	ds from user input (XSS)	no		

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



8 Installation of 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
0	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":

O Search	Apparo Fast Edit	+	→ All content
My content	Name ^	Modified	Owner
抗 Team content 🌘	P Apparo Designer	2.6.2016	Unknown
✓ Recent	subfolder	3.6.2016	Anonym

Now you should see:

		Client manag	ement and settings	Anonymous (Close Designer
	+ New 🕹 Import 🛓 Ex	sport			
<	Installed clients				
Connections	Client ID	Client name	Associated security groups	Order	Actions
-	No client is currently installed. Plea	se create one client first.			
Business Cases					
¢°					
Settings					똜
*					w des
Clients					cripti
ž About Apparo					9

Please select "Show description" button on the right side to see descriptions for each feature.

Press the "New" button and create a new client.

You can find a detail description of client management in "Configuration guide".



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.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.bat 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 (if no gateway)



10 Import/Export definitions using command line

You can export and import clients (including languages, folder, Business Cases, connections, 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.bat

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

-afeUrl <url></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></business_case_id>	ID of a Business Case you want to export.
-clientId <client_id></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></conn_name>	Name of a database connection you want to export.
-emailc <conn_name></conn_name>	Name of an email connection you want to export.
-f <filepath></filepath>	Filename & path where to write the exported XML.
-folderPath <path></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></password>	The password used to authenticate. This setting is necessary in a secured environment.
-u <username></username>	The user used to authenticate. This setting is necessary in a secured environment.

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

Sample:

afe-export.bat -f \etc\definition.xml -clientId DemoClient



10.2 Importing definitions

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></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></client_id>	ID of a client that Business Cases, language definitions, database messages or connection definitions will be imported into.
-f <file></file>	The file that contains the client, Business Case, language definition, database messages or connection definitions.
-h	Displays this help text
-importSecurity <true false></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></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></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></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></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></password>	The password used to authenticate. This setting is necessary in a secured environment.
-u <username></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.bat -f \etc\definition.xml -u aferep -p aferep -clientId Sales

[72]


11 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 [APPARO_HOME]\FastEdit\OpenJDK\lib\security\cacerts

You can import your certificate with following command.

In this example Apparo is installed in "C:\Program Files\Apparo", the certificate file has the name "C:\myCertificate.crt" and the default password of the key store is "changeit".

"C:\Program Files\Apparo\FastEdit\OpenJDK\bin\keytool" -importcert -file C:\myCertificate.crt -alias my.company.com -keystore "C:\Program Files\Apparo\FastEdit\OpenJDK\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.



12 Support

If you need support then please write an eMail to:

support@apparo.solutions