

Installation Guide

Apparo Fast Edit

Multi Instance

3.3.0.0

Windows / Stand-alone version





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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 Server 2008-2022

Windows Domains and Single Sign On (SSO)

If Apparo must run with single sign on:

The web server of the Apparo Gateway and Apparo Application Server must be running in the same Windows domain. All Apparo users must be included in the Active Directory of this domain.

Supported web servers

- MS Internet Information Server (IIS)
- Apache web server 2.4 (64 bit only, included in setup too for MS Windows)
- IBM Webserver (IHS)

Supported security systems

- LDAP
- MS Active Directory / Kerberos

Supported virtual environments

- VMware ESX/ESXi
- VMware Player

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



1.1 Installation strategy

Following steps are necessary in this order:

1	Database preparation for Apparo repository Defining a security group "Apparo Designers"
2	Installation and configuration of all Apparo application servers
3	Installation and configuration of Apparo Gateway



1.2 Architecture

Possible Apparo Fast Edit architectures:

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



2 Preparation

0	 Preparation Analysing environment Creation of a database user for the Apparo repository Defining the security group for all users that must be able to open the Apparo environment with full access
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 Apparo Gateway Configuration the web server (if not installed) and the Apparo Gateway using the Apparo Configuration Manager
6	Installing client and languages Installing a new client and languages in Apparo Designer



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 10g-latest
- IBM DB2 9-latest
- MS SQL Server 2008-2019

The "internal database" is not ready for clustering – therefore don't use this database type.

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

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

Essential grants:

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

Hints:

- **Oracle:** DB-User should have CONNECT, RESOURCE and UNLIMITED TABLESPACE grants. User **SYS** is not allowed.
- IBM DB/2: see document "Installation creating database repository"



2.2 Defining the security group for all Apparo Administrator users

In order to have **full access** to the Apparo environment the user must be a member of a security group.

- Define a new group called **Apparo Designers** in the used security system, for example MS Active Directory
- Add for example the Windows user **Administrator** into this group. Later this user is able to open the Apparo environment with full access only



3 Installation of all Apparo application servers

0	Preparation
	 Analysing environment Creation of a database user for the Apparo repository Defining the security group for all users that must be able to open the Apparo environment with full access
2	Installation of all Apparo application servers
3	Configuration of all Apparo application servers Configuration using the Apparo Configuration Manager
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5	Configuration of the Apparo Gateway Configuration the web server (if not in installation included) and the Apparo Gateway using the Apparo Configuration Manager
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Start the Installation by execute the file

FastEdit3.3.0.0.zzz_winows_tomcat_standalone.exe

•	Setup - Apparo Fast Edit 🛛 🗖 🗙
	Welcome to the Apparo Fast Edit Setup Wizard
	This will install Apparo Fast Edit on your computer. The wizard will lead you step by step through the installation.
	Click Next to continue, or Cancel to exit Setup.
	Next > Cancel

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

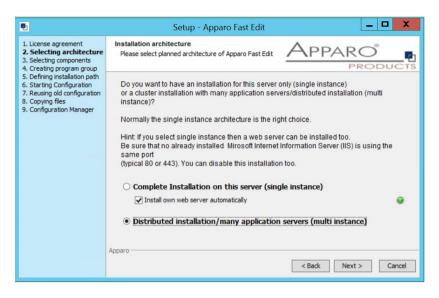
3.1 License agreement

•	Setup - Apparo Fast Edit 📃 🗕 🗖 🗙
1. License agreement 2. Selecting architecture 3. Selecting components 4. Creating program group	License Agreement Please read the following important information before continuing.
 5. Defining installation path 6. Starting Configuration 7. Reusing old configuration 	Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.
8. Copying files 9. Configuration Manager	Copyright © Apparo Sueddeutschland GmbH
	I accept the agreement I do not accept the agreement
	< Back Next > Cancel

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



3.2 Selecting the architecture



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

Now it's the time to choose the Apparo application server.

•	Setup - Apparo Fast Edit 📃 🗖 🗙
1. License agreement 2. Selecting architecture 3. Selecting components 4. Creating program group	Select Apparo Fast Edit module for installation
 Defining installation path Starting Configuration Reusing old configuration Copying files Configuration Manager 	Apparo Fast Edit contains 2 different components: The "Apparo Gateway" must be installed once. It is the entry point for all URL requests. Part of this is a web server. If you want to use your own web server (MS IIS or Apache) then uncheck the checkbox. You can cluster many Apparo Application servers for better load balancing and higher availability. It is possible to install Apparo Application Servers on different hosts too.
	 ○ Apparo Gateway ✓ Install web server too Ø ● Apparo Application Server
	Apparo < Back Next > Cancel

Apparo Gateway

The Gateway is the entry URL point for using Apparo Fast Edit. A web server (Apache 2.4) is automatically installed if checkbox is checked.

Apparo Application Server

If you want to install the Apparo Application Server

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



3.3 Defining the target file directory

•	Setup - Apparo Fast Edit	_ 🗆 X
1. License agreement 2. Selecting architecture 3. Selecting components 4. Creating program group	Select Start Menu Folder Where should Setup place the program's shortcuts?	
 Creating program group Defining installation path Starting Configuration Reusing old configuration Copying files Configuration Manager 	Select the Start Menu folder in which you would like Se click Next. Accessibility Accessories Administrative Tools Apparo Microsoft Silverlight System Tools VMware	
	Apparo	< Back Next > Cancel

Choose "Next".

•	Setup - Apparo Fast Edit 📃 🗖 🗙
1. License agreement 2. Selecting architecture 3. Selecting components 4. Creating program group	Select Destination Directory Where should Apparo Fast Edit be installed?
5. Defining installation path 6. Starting Configuration 7. Reusing old configuration 8. Copying files 9. Configuration Manager	Select the folder where you would like Apparo Fast Edit to be installed, then click Next. Destination directory Ct/Program Files/Apparo Browse
	Required disk space: 822 MB Free disk space: 32 GB
	Apparo
	< Back Next > Cancel

Default path is:

C:\Program Files\Apparo

Please define the 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 📃 🗖 🗙
License agreement Selecting architecture Selecting components Creating program group	Installing Please wait while Setup installs Apparo Fast Edit on your computer.
 Defining installation path S. Defining installation path Starting Configuration Reusing old configuration 8. Copying files 9. Configuration Manager 	Extracting files jdk\lp\missioncontrol\plugins\com.jrodkit.mc.flightrecorder.ui_5.3.0.159881.jar
	Apparo

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.

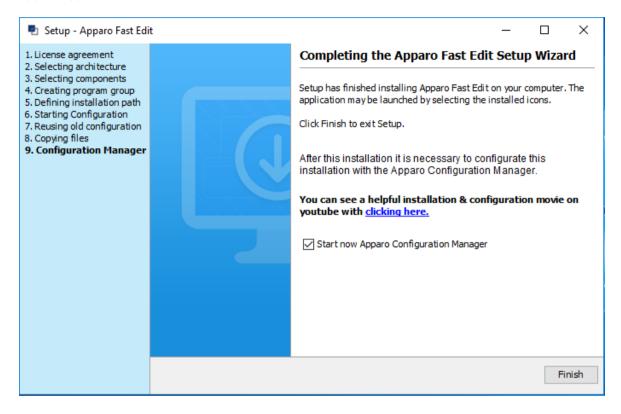


4 Configuration of all Apparo application servers

0	Preparation
•	 Analysing environment Creation of a database user for the Apparo repository Defining the security group for all users that must be able to open the Apparo environment with full access
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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:



Press the "Test Configuration" button for testing all settings.



2

Press the <u>"Start Apparo</u>" button for starting the application server

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

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

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

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

You should see like this:





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 in a comfortable way.

4.1



4.2 Architecture

In this section of the Configuration Manager 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 Windows Services	er 3.755		-	×
🔡 Save 💿 Test Configurati	on 🚺 Start Apparo 🕕 Show Application server Log			
Configuration Architecture Application server File system paths Web security system Analisecurity system Constitution	Name Architecture type	Value Multi instance / Application server (stand alone)		
iii Repository iii License key				
	Welcome to the Apparo Configuration Manager! With this tool you can make the configuration of an afree You can run the Configuration Manager directly after ins If you select the Configuration Manager entry in the start "Save" button: Saving your settings into configuration_32.xml file "Test Configuration" button: Testing all settings - You will get a success message of a list of errors after the tests are finished. "Start Anage" button:	allation or menu.		<



4.3 Application server

Settings for the application server:

Apparo Configuration Manag	er 3.755		-	×
File Windows Services				
🔛 Save 💿 Test Configurati	on 🚺 Start Apparo 🕕 Show Application server Log	③ Show Gateway Log		
Configuration	Name	Value		
Architecture	Host name	AFE32WINStandalone.sad.com		
Application server	Tomcat start port	18000		
📒 File system paths	Tomcat connector port	9800		
Web security system	Apparo URL Folder	apparo		
兰 eMail security system	Apparo gateway protocol	HTTP only		
Repository	Apparo gateway HTTP port	80		
🖆 License key	Apparo gateway external URL	http://34.248.189.63		
	Logging Level	Detail		
	Show error messages	yes		
	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>		
		Import SSL Certificate		
	Each Apparo installation has at least 1 application serve That's a Apache Tomcal installation that is communical			

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.



4.4 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			
	The file system paths are used for executir	ig of 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 tnsnames.ora

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



4.4.5 Java Keystore path and name

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

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

You can import your certificate with following command:

For a Linux environment:

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

After that you must restart the Apparo Configuration Manager again.

4.4.6 Java Keystore password

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



4.5 Web security system

Following security systems are supported:

- LDAP
- Active Directory / Kerberos
- No security system

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

Following authentication ways are possible:

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

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

. д		μ				
Configuration	Name			Value		
Architecture	Authentication	Login pag	e			
Application server	Security System	MS Active	Directory			
🛑 File system paths	Active Directory host name	<click he<="" td=""><td>re to define</td><td>this setting></td><td></td><td></td></click>	re to define	this setting>		
📒 Web security system	Use SSL	no				
📒 eMail security system	Active Directory port	389				
Repository	Base Distinguished Name (DN)	-retrieve a	automatic-			
🛑 License key	Authentication Method	Simple bir	nd			
	Bind user login	<click he<="" td=""><td>re to define</td><td>this setting></td><td></td><td></td></click>	re to define	this setting>		
	Password	<click he<="" td=""><td>re to define</td><td>this setting></td><td></td><td></td></click>	re to define	this setting>		
	Web security groups for adminis	strators <click he<="" td=""><td>re to define</td><td>this setting></td><td></td><td></td></click>	re to define	this setting>		
		Test Security System Conr	nection	Test User Login		
	How Apparo must ask for the u Login page: The user is seeing Single Sign On (SSO): The web The browser must deliver the u domain. If the browser is not delivering This is possible if the web serve Single Sign On (SSO) using Apa The web server (Apparo Gatew	a login page and the system server (Apparo Gateway) is t iser name automatically (the a user name then the brows er is running with Windows or ache variable: This is helpful i	rying to cato re are settir er is asking hly. f you want to	the user name igs for that) and r for a login. o use Apache web	from the web browser. must be in the same Wind o server and SAML.	lows

4.5.1 Setting "Web security groups for administrators":

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

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



4.5.2 Using multiple LDAP/Active Directory servers parallel

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

File Windows Services	Apparo Configuration Manager	3.833-SNAPSHOT	- [×
🔡 Save 🧴 💿 Test Config	uration 🚺 🚺 Start Apparo 🕕 Show Application	server Log 🕕 Show Gateway Log		
Configuration	Name	Value		
Architecture	Authentication	Login page		
Application server	Security System	MS Active Directory		
File system paths	Active Directory host name	Host1;Host2;Host3		
📒 Web security system	Use SSL	yes		
i eMail security system	Active Directory port	636;636;389		
Repository	Base Distinguished Name (DN)	dc=sad,dc=com		
License key	Authentication Method	Simple bind		
	Bind user login	sad\administrator		
	Password	***		
	Web security groups for administrators	Apparo Designers		

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

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

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

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



4.5.3 Using SASL/Kerberos

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

File Windows Services	Apparo Configuration Manage	r 3.833-SNAPSHOT –	\times
🔚 Save 🧴 💿 Test Config	uration 🛛 🔕 Start Apparo 🕕 🕕 Show Application	server Log 🕕 Show Gateway Log	
E Configuration	Name	Value	
Architecture	Authentication	Login page	
Application server	Security System	MS Active Directory	
File system paths	Active Directory host name	Host1;Host2;Host3	
🗐 Web security system	Use SSL	yes	
📹 eMail security system	Active Directory port	636;636;389	
Repository	Base Distinguished Name (DN)	dc=sad,dc=com;dc=domain1,dc=com;dc=domain2,dc=com	
License key	Authentication Method	SASL	
	Bind user login	sad\administrator	
	Password	***	
	Web security groups for administrators	Apparo Designers	

Important!

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

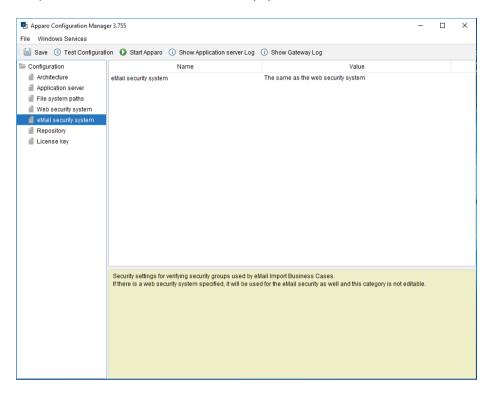
← → • ↑ 🖡	> This	; PC → Local Disk (C:) → Program Files	> Apparo3220 > FastEdit > c	m	
		Name	Date modified	Туре	Size
🗸 📌 Quick access			2/7/2022 4:24 DM	File felder	
📃 Desktop	*	certificate	2/7/2022 4:24 PM	File folder	
Documents	*	📙 info	1/27/2023 8:12 AM	File folder	
Downloads	*	💄 input	1/27/2023 8:12 AM	File folder	
•		📕 lib	1/27/2023 8:12 AM	File folder	
Pictures	*	촱 afecm.jar	1/27/2023 7:44 AM	JAR File	503 KB
📜 cm		💿 cm.bat	1/27/2023 8:12 AM	Windows Batch File	1 KB
📕 FastEdit		💿 cm_console.bat	1/27/2023 7:44 AM	Windows Batch File	1 KB
💺 Local Disk (C:)		💿 cmc.bat	1/27/2023 7:44 AM	Windows Batch File	1 KB
📜 logs		configuration.log	1/27/2023 8:41 AM	Text Document	400 KB
		configuration_32.xml	1/30/2023 10:21 A	XML File	5 KB
🗸 🧢 This PC		configuration_default_32.xml	1/25/2022 3:30 PM	XML File	1 KB
> 🧊 3D Objects		📳 createRepository.sql	7/5/2022 2:03 PM	Microsoft SQL Ser	102 KB
> 📃 Desktop		🔬 <mark>krb5.ini</mark>	2/7/2022 5:14 PM	Configuration setti	3 KB
> 🖹 Documents		🔬 krb5_example1.ini	1/27/2023 7:44 AM	Configuration setti	1 KB
> 🖊 Downloads		🔬 krb5_example2.ini	1/27/2023 7:44 AM	Configuration setti	2 KB
> 🎝 Music		MakeConfigurationIIS.bat	11/12/2021 5:08 PM	Windows Batch File	6 KB



4.6 eMail security system

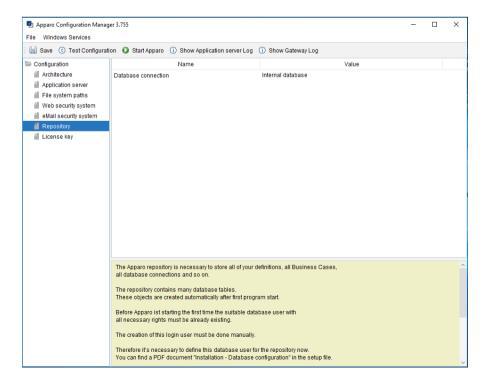
All Business Cases of type "eMail Excel import Business Case" can import data of Excel sheets that are delivered by eMail.

It is possible to define here the used security system too.



4.7 Repository

The database connection to the Apparo repository:





4.8 License key

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

Apparo Configuration Manag	🛃 Apparo Configuration Manager 3.755 — 📃				
File Windows Services					
🔡 Save 💿 Test Configurati	on 🚺 Start Apparo 🕕 Show Application server Log	 Show Gateway Log 			
Seconfiguration	Name	Value			
Architecture	Type of license	Own license key			
Application server	License key	18-74-9c-68-7a-92-f8-f7-ce-af-19-e7-77-93-5b-61-3-58-e6-69-87-73			
📒 File system paths					
Web security system					
eMail security system					
Repository					
省 License key					
		Test License Key			
	Please paste the license key for Apparo into this field. With the license key it is possible to start the business	cases.			
	Attention: If you use a trial license key then this key is tin You can see the expiration date in the Apparo Designer				
	If you need a new license key then write to support@ap	paro.solutions			
	Attention: After you have entered/updated the license ke the application server with button "Start Apparo".	y it is necessary to restart			



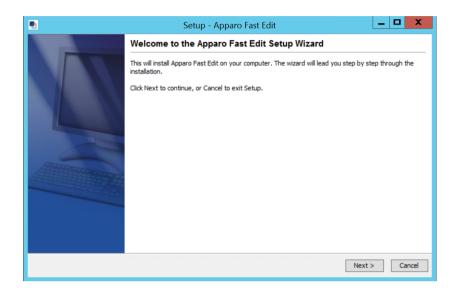
5 Installation of all Apparo gateways

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	 Analysing environment Creation of a database user for the Apparo repository Defining the security group for all users that must be able to open the Apparo environment with full access
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Start the installation by opening the file

FastEdit3.3.0.0.yyy_windows_tomcat_standalone.exe



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

5.1 License agreement

2	Setup - Apparo Fast Edit 📃 🗖 🗙
1. License agreement 2. Selecting architecture 3. Selecting components 4. Creating program group	License Agreement Please read the following important information before continuing.
5. Defining installation path 6. Starting Configuration 7. Reusing old configuration	Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.
	Copyright © Apparo Sueddeutschland GmbH
	Apparo <back next=""> Cancel</back>

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



5.2 Selecting the architecture

	Setup - Apparo Fast Edit 📃 🗖 🗙			
License agreement Selecting architecture Selecting components Gelecting components Creating program group Defining installation path Starting Configuration Reusing old configuration S. Copying files S. Configuration Manager	Installation architecture Please select planned architecture of Apparo Fast Edit PRODUCTS			
	Do you want to have an installation for this server only (single instance) or a cluster installation with many application servers/distributed installation (multi instance)? Normally the single instance architecture is the right choice.			
	Hint: If you select single instance then a web server can be installed too. Be sure that no already installed Mirosoft Internet Information Server (IIS) is using the same port (typical 80 or 443). You can disable this installation too.			
	• Complete Installation on this server (single instance)			
	✓ Install own web server automatically			
	 Distributed installation/many application servers (multi instance) 			
	Apparo Kenter Cancel			

Select "Distributed installation" and choose "Next".

Now it's the time to choose the Apparo Gateway.

•	Setup - Apparo Fast Edit 📃 🗖 🗙
1. License agreement 2. Selecting architecture 3. Selecting components 4. Creating program group	Select Apparo Fast Edit module for installation
 Defining installation path Starting Configuration Reusing old configuration Copying files Configuration Manager 	Apparo Fast Edit contains 2 different components: The "Apparo Gateway" must be installed once. It is the entry point for all URL requests. Part of this is a web server. If you want to use your own web server (MS IIS or Apache) then uncheck the checkbox. You can cluster many Apparo Application servers for better load balancing and higher availability. It is possible to install Apparo Application Servers on different hosts too.
	Apparo Application Server
	Apparo

Install web server too: If checked then the setup is automatically installing Apache 2.4 too. If you want to use your own web server – for example IIS – then uncheck it.

Select Apparo Gateway and choose "Next".



Defining the target file directory

•	Setup - Apparo Fast Edit 📃 🗖 🗙
1. License agreement 2. Selecting architecture 3. Selecting components 4. Creating program group	Select Start Menu Folder Where should Setup place the program's shortcuts?
 Creating program groups Defining installation path Starting Configuration Reusing old configuration Copying files Configuration Manager 	Select the Start Menu folder in which you would like Setup to create the program's shortcuts, then click Next.
	Apparo Gateway
	Accessibility
	Accessories
	Administrative Tools
	Apparo Maintenance
	Microsoft Silverlight
	System Tools
	VMware
	Apparo
	< Back Next > Cancel

The default name is "Apparo Gateway".

•	Setup - Apparo Fast Edit	_ 🗆 X
1. License agreement 2. Selecting architecture 3. Selecting components 4. Creating program group	Select Destination Directory Where should Apparo Fast Edit be installed?	
 Cleaning installation path Starting Configuration Reusing old configuration Copying files Configuration Manager 	Select the folder where you would like Apparo Fast Edit to be installed Destination directory C:\Program Files\ApparoGateway Required disk space: 622 MB Free disk space: 32 GB Apparo Apparo	, then dick Next. Browse Browse Next > Cancel

Default path:

C:\Program Files\ApparoGateway

Please use for each module (Gateway, Application server) an own installation path.

Please define the path and choose "Next".



5.3 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	_ D X
License agreement Selecting architecture Selecting components Creating program group Defining installation path Starting Configuration Reusing old configuration Scopying files	Installing Please wait while Setup installs Apparo Fast Edit on your computer.	
	Extracting files jdk\db\lb\derbynet.jar	
9. Configuration Manager		
	Apparo	
		Cancel

5.4 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 all Apparo gateways

0	Preparation
	 Analysing environment Creation of a database user for the Apparo repository Defining the security group for all users that must be able to open the Apparo environment with full access
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
6	Configuration Apparo Gateway Configuration the web server (if not installed) and the Apparo Gateway using the Apparo Configuration Manager
6	Installing client and languages Installing a new client and languages in Apparo Designer



Before starting of the Apparo gateway 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 File	er 3.755		-	×
🔡 Save 🚺 Deploy Configur	ration			
Configuration	Name	Value		
 Architecture Apparo gateway Application servers 	Architecture type	Multi instance / Gateway (stand alone)		
	Welcome to the Apparo Configuration Manager!			
	With this tool you can make the configuration of an alread Save button: Saving your settings into configuration_32.xml file "Deploy Configuration" button: Deploying Configuration Show Gateway Log button: Pressing this button you can see the log file of the web set (displayed only if the web server is part of installation)			

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 in a comfortable way.



6.1 Architecture

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

Appro Configuration Manager 3.75
 File
 Incomparation
 Acchitecture
 Acchitecture type
 Multi instance / Gateway (stand alone)
 Architecture type
 Multi instance / Gateway (stand alone)
 Veloceme to the Apparo Configuration Manager!
 Welcome to the Apparo Configuration Manager!
 With this tool you can make the configuration Manager!
 With this tool you can make the configuration of an already installed Apparo.
 Save Dutlor:
 Save Dutlor:
 Save Dutlor:
 Save Dutlor:
 Deploy Configuration Tutlors.
 Show Gateway Log buttor:
 Pressing this both no you can be the tog the of the web server.
 Acting and the server is and the server.
 Show Gateway Log buttor:
 Pressing this both no you can be the tog the of the web server.
 Acting and the server is and the server.
 Binow Gateway Log buttor:
 Pressing this both no you can be the tog the of the web server.
 Acting and the server is and the server is and the server.
 Acting and the server is and the server is and the server.

6.2 Gateway settings

nager 3.755		-		\times
guration				
Name	Value			
Apparo URL Folder	apparo			
Host name	AFE32WINStandalone.sad.com			
Apparo gateway protocol	HTTP only			
Apparo gateway HTTP port	80			
Apparo gateway external URL	http://AFE32WINStandalone.sad.com:80			
Use Single Sign On (SSO)	no			
	guration Name Apparo URL Folder Host name Apparo gateway protocol Apparo gateway HTTP port Apparo gateway external URL	Image: subscript of the state of the sta	Image: Supervision of the system of the s	Apparo gateway protocol HTTP only Apparo gateway external URL 80 Apparo gateway external URL http://AFE32WINStandalone.sad.com:80



6.3 List of application servers

Apparo Configuration Manage	er 3.755		-	×
File				
🔡 Save 🚺 Deploy Configur	ation			
Section Configuration	Name	Value		
Architecture	Communication port s1	AFE32WINStandalone.sad.com:9800		
🗐 Apparo gateway				
Application servers				
	Each Apparo application server has			^
	* an unique server id (1,2,3,n) * an application server host name			
	* a communication port (default 9800)			
	The Apparo Gateway is responsible to transport the requ	jest from the web server		
	to an application server. Therefore it must know all appli			
	Syntax: s <server id=""> <application host="" name="" server="">:<c< td=""><td>communication port></td><td></td><td></td></c<></application></server>	communication port>		
	Example: s1 hostname:9810			
	In a multi instance environment you can add and delete	communication norts with pressing		~

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 server settings too.**

That means: Communication port s1 is for Application Server #1



7 Open the Apparo Portal

The URL for opening the Apparo Portal:

http://servername/apparo

or

http://servername

Hint: If you have changed the folder name in the Apparo Configuration Manager then you must use this name instead of "apparo".

If you have changed the Apparo gateway protocol to https then you must use https.

Example:

http://aqserver11/apparo

Now try to start the Apparo Portal – just **use the link in your web browser.**

8 Open the Apparo Designer

The URL for opening the Apparo Designer:

http://servername/apparo/designer

Hint: If you have changed the folder name in the Apparo Configuration Manager then you must use this name instead of "apparo".

If you have changed the Apparo gateway protocol to https then you must use https.



8.1 Installation of the client

0	Preparation
	 Analysing environment Creation of a database user for the Apparo repository Defining the security group for all users that must be able to open the Apparo environment with full access
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 Apparo Gateway Configuration the web server (if not installed) and the Apparo Gateway using the Apparo Configuration Manager
6	Installing client and languages Installing a new client and languages in Apparo Designer



Now it is necessary to install a client.

		Client management and sett	ings	Admini	strator	
	🕇 New 🛃 Import	Export				
<	Installed clients					
Connections	Client ID	Client name	Associated security groups	Order	Actions	;
Business Cases	No client is currently installed. F	Please create one client first.				
¢¢ Settings						
Clients						Show description
2 About Fast Edit						tion

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

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



Client attributes		×
Each client has an unique name and optional se	ecurity groups that are necessary for using it.	
Client identifier	client1 * A unique identifier for the client. This identifier will be used as a folder name on the	
	server's filesystem name for client specific files. Client identifier may contain only basic letters a-z, A-Z, numbers 0-9, dashes or underscore characters.	
Client name	client1 *	
	An unique name for the client.	
Client internal description		
Client is enabled and can be used		
Client security groups (comma separated list)		
	Each user must be mapped to a client. If an user is member of at least one of these security groups (separated by comma) then the user is member of this client.	
Usable languages of this client	Croatian (hr) Czech (cs) Dutch (nl)	
	English (en) French (fr) German (de)	
	Hungarian (hu) Italian (it) Japanese (jp)	
	Slovak (sk) Turkish (tr)	
	Please select all languages that must be used for this client. It is also possible to activate or import languages later in client settings.	
OK CANCEL		

Define a client identifier and a name, select the desired languages and press the **OK** button.



🛃 Арран	ro Fast Edit	Client management and settings	Administrator client	Go to Porta	ı د
	🕂 New 🛓 Import	± Export			
<	Installed clients				
Connections	Client ID	Client name	Associated security groups	Order Actio	ns
Business Cases	> client1	> client1		* * X	
¢ ⇔ Settings					ŭ
Clients					Show description
2 About Fast Edit					tion

Now select the client (here: client1) to get the properties of the client:

🛃 Apparo F	ast Edit				Settings of client client1	I			Administrat	or	client1	
Client head	General	Language	es	Default r	numeric & datetime formats	Ac	cess rights	Autor	natic table/co	olum	n creation	
Excel export for	ormats	Business Lo	g I	Portal	Colours of portal and desig	gner	Business	case sta	ndard style			
Client identifier			client1					*				
Client name Client security gro	una (aamma	concreted list)	client1	1				*				
Client internal des		separateu iistj										Show description
ок	CANCE	iL										tion



In tab "Access rights" you can define all security groups for different features.

These settings are optional.

🛃 Apparo I	Fast Edit			Settings of client client1			Administrate	or cli	ient1	
Client head	General	Languages	Default	numeric & datetime formats	Acces	s rights	Automatic table/co	lumn c	reation	
Excel export	formats	Business Log	Portal	Colours of portal and desig	ner	Business o	ase standard style			
		g secured parts of Ap that means access to		it. Only users with listed security grou nrestricted.	ps will be	able to acces	s that particular functions.			
Apparo Client A	dministrator	has unrestricted acco	ess to all feat	ures of this client						
Apparo Connec	tion Adminis	trator: can create, ed	t and delete (database and email server connectior	IS					
Apparo Designe	er: manages B	usiness Cases - can	create, delete	and edit Business Cases and folders						
Apparo Import 8	& Export Adm	inistrator: can impor	t and export I	Business Cases and connections						
Apparo Portal A	dministrator	can import, export ar	nd edit all por	tal entries of this client						똜
Enter comma se	parated list of	security groups for ea	ch Apparo Fa	ast Edit role:						Show description
Apparo Client Ac	Iministrator	Administrat	ors							riptio
Apparo Connecti	on Administra	tor								
Apparo Designer										

After that please press the OK for leaving the client settings.

🛃 Appar	ro Fast Edit	Business Case List	Administrator cl	ient1 Go to Portal 🔱
	+ New	+ New X Delete □ Copy/Move	📩 Import 🚺 🕹 Exp	ort Filter Q
<	Business Case Folders	Business Cases of folder client1		
Connections	Cient1	Start Business Name 🗘	Type Connection Target	Last Last ew change change user ≎ date ≎
Business Cases		The Business Case list is empty.		
₽ ₽ Settings				
Clients				Show description
2 About Fast Edit				ġ

Now you can press the "Business Cases" Icon on the left side and you see the entry page for this client:



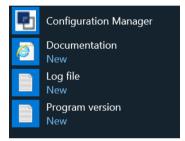
The installation & configuration on server-side is now successfully completed.

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) / Apparo / Documentation



Movies about Apparo Fast Edit:

http://movies.apparo.solutions



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.sh parameter1 parameter2 ...

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

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.
-overwriteClientButRescueExistingConnec	tions <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



11 Making own XML import files

You can import database connection and email connection definitions using own xml files.

These files have encrypted settings – like database name.

If you want to write your own xml files then you must change following XML-setting first:

Set

<encryptedXmlData>true</encryptedXmlData>

То

<encryptedXmlData>false</encryptedXmlData>

Example:

- 1. Define own database connection in Apparo Designer
- 2. Export this connection into a xml file
- 3. Now you can see the expected xml structure
- 4. Please change the encryptedXMLData tag



12 Browser requirements

12.1 Supported browsers and versions

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

12.2 Supported operating systems for client browsers

Microsoft Windows Apple iOS Android

12.3 Additional settings for all browsers

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



13 Using https

13.1 Self signed certificate

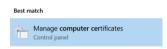
If your Apparo environment should run with **https** then in this case the Apparo Gateway need an SSL certificate.

Apparo is using **automatically** a self signed certificate.

13.2 Using a certifcate

If you already have a certificate imported into MS certificate store then you can import this certificate into Apparo using Apparo Configuration Manager.

13.2.1 Export of the certificate from the certificate store





Search for "computer cert" and select "Manage computer certification".



B 🛛			
(D)		Issued By RapidSSL SHA256 CA RapidSSL SHA256 CA - G2	Ex 4/ 5/
	Open		
	Cut Copy	Request Certificate with New Ke Renew Certificate with New Key	-
	Properties	Manage Private Keys Advanced Operations	
	Help	Export	
	Issued To	Issued To admin.apparo.services Open All Tasks > Cut Copy Delete Properties	Issued To Issued By admin.apparo.services RapidSSL SHA256 CA admin.apparo.services RapidSSL SHA256 CA - G2 Open All Tasks > Open Cut Cut Copy Delete Renew Certificate with New Key Delete Manage Private Keys Properties Advanced Operations

Search for you certificate, press right mouse button and select "Export".

Welco	me to the C	ertificate E	xport Wiza	rd	
	helps you copy o certificate store t		cate trust lists an	d certificate revocatio	n
and contain	e, which is issued ns information use s. A certificate sto	d to protect data	or to establish se		ntity
To continue	e, dick Next.				



Export Private Key
You can choose to export the private key with the certificate.
Private keys are password protected. If you want to export the private key with the certificate, you must type a password on a later page.
Do you want to export the private key with the certificate?
• Yes, export the private key
○ No, do not export the private key

Export the key with the private key...

🐓 Certificate Export Wizard	
Export File Format	
Certificates can be exported in a variety of file formats.	
Select the format you want to use:	
O DER encoded binary X.509 (.CER)	
Base-64 encoded X.509 (.CER)	
O Cryptographic Message Syntax Standard - PKCS #7 Certificates (.P7B)	
Include all certificates in the certification path if possible	
Personal Information Exchange - PKCS #12 (.PFX)	
☑ Include all certificates in the certification path if possible	
Delete the private key if the export is successful	
Export all extended properties	
Enable certificate privacy	
Microsoft Serialized Certificate Store (.SST)	
Next	Cancel



← ,	Certificate Export Wizard	
	Security To maintain security, you must protect the private ke using a password.	y to a security principal or by
	Group or user names (recommended)	_
		Add
		Remove
	Password:	-
	••••	
	Confirm password:	1
	•••]
		Next Cance

Enter a new password ...

-	Certificate Export Wizard	
	File to Export Specify the name of the file you want to exp	ort
	File name:	
	c:\myCertificate	Browse
		Next Cancel

.. and store it.



Completing the Certificate Export Wizard You have successfully completed the Certificate Export wizard. You have specified the following settings: You have specified the following settings: File Name ct/myCertificate.pfx Export Keys Yes Include all certificates in the certification path Yes File Format Personal Information Exchange (*.pfx)	F Certificate Export Wizard	
You have specified the following settings: File Name c:\myCertificate.pfx Export Keys Yes Include all certificates in the certification path Yes File Format Personal Information Exchange (*.pfx)	Completing the Certifica	te Export Wizard
File Name c:\myCertificate.pfx Export Keys Yes Include all certificates in the certification path Yes File Format Personal Information Exchange (*.pfx)	You have successfully completed the G	ertificate Export wizard.
Export Keys Yes Include all certificates in the certification path Yes File Format Personal Information Exchange (*.pfx	You have specified the following setting	js:
Include all certificates in the certification path Yes File Format Personal Information Exchange (*,pfx)	File Name	c:\myCertificate.pfx
File Format Personal Information Exchange (*.pfx		
٢	The Former	r cronar znomodor Exchange (- prz,
	<	>



Apparo Configuration Mana File Windows Services	iger 3.755		_	×
🗟 Save 💿 Test Configura	ation 🜔 Start Apparo 🕕 Show Application server Log	O Show Gateway Log		
Configuration	Name	Value		
Architecture	Host name	AFE32WINStandalone.sad.com		
Application server	Tomcat start port	18000		
File system paths	Tomcat connector port	9800		
Web security system	Apparo URL Folder	apparo		
🛑 eMail security system	Apparo gateway protocol	HTTP only		
Repository	Apparo gateway HTTP port	80		
License key	Apparo gateway external URL	http://34.248.189.63		
	Logging Level	Detail		
	Show error messages	yes		
	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>		

In the Apparo Configuration Manager select button "Import SSL Certificate"...

... and press button "Import SSL Certificate".

Import SSL Certificate		×
Select SSL certificate file you want to use for Apparo Gateway.		
SSL certificate file Password for SSL certificate	Select	
Import Cancel		

Select your certificate file, enter the password and press button "Import". After that this certificate will be used.



14 Support

If you need support, please write an email to:

support@apparo.solutions