

Installation Guide

Apparo Fast Edit

Single Instance

Qlik Sense

Version 3.3.0.0





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1 Prior to Installation

Installing Apparo Fast Edit can be done in 1/2 hour if you prepare your environment.

Please be aware of the following points before starting installation:

Hardware requirements

- File system about 1 GB file storage
- Main Memory about 4 GB main memory

Supported operating systems

• Windows Server 2008 – current

Supported Qlik Sense versions and products

• Qlik Sense 2020 January and higher

Supported security systems

• All security systems that are currently in use for Qlik Sense Apparo is using the security system of Qlik Sense only

Supported virtual environments

- VMware ESX, ESXi
- Amazon AWS
- Microsoft Azure

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

Qlik Sense Enterprise must be already installed and running.



1.1 Installation video

You can find an installation movie on YouTube using:

http://inst-gliksense.apparo.solutions



Following steps are necessary in this order:

1	Database preparation for Apparo Repository
2	Installation and configuration of all Apparo Fast Edit
3	Adding Apparo Extensions into Qlik Sense



Apparo Fast Edit can be installed parallel to the Qlik Sense installation on the same host.





0	Preparation
	 Analysing environment Creation of a database user for the Apparo repository
2	Installation of Apparo Fast Edit
3	Configuration of Apparo Fast Edit Configuration using the Apparo Configuration Manager
4	Adding Apparo Extensions into Qlik Sense
5	Installing clients



2 Preparation

0	 Preparation Analysing environment Creation of a database user for the Apparo repository
2	Installation of Apparo Fast Edit
3	Configuration of Apparo Fast Edit Configuration using the Apparo Configuration Manager
4	Adding Apparo Extensions into Qlik Sense
5	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 DB2
- MS SQL Server
- MS Azure SQL Database
- Internal database (for presentation and development only)

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



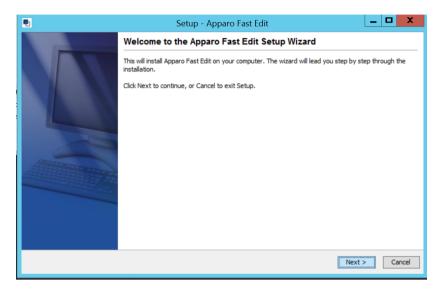
3 Installation of Apparo Fast Edit

0	Preparation
	 Analysing environment Creation of a database user for the Apparo repository
2	Installation of Apparo Fast Edit
3	Configuration of Apparo Fast Edit Configuration using the Apparo Configuration Manager
4	Adding Apparo Extensions into Qlik Sense
5	Installing clients



Start the Installation by execute the file

FastEdit3.3.0.0.yyy_windows_tomcat_qliksense.exe



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 8. Copying files	Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.
9, Configuration Manager	Copyright © Apparo Sueddeutschland GmbH ^ CONTENTS: This software product ("Software") consists of trade secrets and intellectual property belonging to, or licensed by, Apparo Süddeutschland GmbH, reading on this medium ('Medium') and related user documentation ('Related Documentation'). TITLE: Ownership of the Software and any related trademark, trade secret or copyright are, and will remain, the exclusive property of Apparo Süddeutschland GmbH and its licensors. LICENSE: You are granted a non-exclusive license to use the Software. RESTRICTED USE: The use of the Software is restricted to a single computer. The number of
	I accept the agreement I do not accept the agreement Apparo Key Sector Sec

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



3.2 Selecting the architecture

•	Setup - Apparo Fast Edit 📃 🗖 🗙
1. License agreement 2. Selecting architecture 3. Selecting components 4. Creating program group	Installation architecture Please select planned architecture of Apparo Fast Edit PRODUCTS
5. Defining installation path 6. Starting Configuration 7. Reusing old configuration 8. Copying files 9. Configuration Manager	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.
	 <u>Complete Installation on this server (single instance)</u> Distributed installation/many application servers (multi instance)
	Apparo

Select "Complete Installation on this server" and click "Next>".

3.3 Defining the start menu entry and 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?
5. Defining installation path 6. Starting Configuration 7. Reusing old configuration	Select the Start Menu folder in which you would like Setup to create the program's shortcuts, then click Next.
8. Copying files 9. Configuration Manager	Apparo
7. Reusing old configuration	Accessibility Accessories Administrative Tools Apparo Gateway Apparossss Maintenance Microsoft Silverlight PSPad editor Qik Sense System Tools VMware Apparo Apparo Kense Kens

•	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	Select the folder where you would like Apparo Fast Edit to be installed, then dick Next. Destination directory
9. Configuration Manager	C:\Program Files\Apparo Browse
	Required disk space: 791 MB Free disk space: 17 GB
	Apparo Sack Next > Cancel

Please define the installation path and choose **"Next >**".



3.4 Carrying out the installation

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

	1	Setup - Apparo Fast Edit	_ D X
2. 3.	License agreement Selecting architecture Selecting components Creating program group	Installing Please wait while Setup installs Apparo Fast Edit on your computer.	
5. 6. 7. 8.	Coexing program good Defining installation path Starting Configuration Reusing old configuration Copying files Configuration Manager	Extracting files jdk/db/lb/derby.jar	
		Apparo	Cancel

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 Apparo Fast Edit

0	Preparation
	 Analysing environment Creation of a database user for the Apparo repository
2	Installation of Apparo Fast Edit
3	Configuration of Apparo Fast Edit Configuration using the Apparo Configuration Manager
4	Adding Apparo Extensions into Qlik Sense
5	Installing clients



With the **Apparo Configuration Manager** you are able to configure and start the already installed Apparo Fast Edit.

🔹 Apparo Configura	Apparo Configuration Manager 3.755					\times
File Windows Services						
🗄 🔚 Save 💿 Test Configurat	ion 🚺 Start Apparo 🕕 Show Application server Log	 Show Gateway Log 				
🗁 Configuration	Name		Value			
 Architecture Application server Qlik Sense File system paths Web security system eMail security system Repository License key 	Architecture type	Single instance (Olik Sense)				
	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 "Test Configuration" button: Testing all settings - You will get a success message of a list of errors after the tests are finished. "Start Apparo" button: After testing you can start Apparo with the current setting	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:



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



2

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



Test if the Apparo application server is running fine:

http://<applicationserver:<start port>/apparo/pages/apptest.xhtml

Example:

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

Hint: You must test that server side, that means inside of the server and not outside. With this URL you can test if the Apparo application server is running fine or has problems.

Output example:

Application status				
Apparo 3.3.0.0 (build: 900)				
Repository connection 📀				
Repository content				
Qlik Sense connection 📀				
Test done in 85 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 File Windows Services	tion Manager 3.755		—	×
	ion 🜔 Start Apparo 🕕 Show Application server Log	 Show Gateway Log 		
Configuration	Name	Value		
 Architecture Application server Qlik Sense File system paths Web security system eMail security system Repository License key 	Architecture type	Single instance (Qiik Sense)		
	Here you can see the selected Apparo architecture - th done at installation time. "Single instance", your existing environment is installed "Mutti instance", one Apparo Gateways and one or mor are installed on one or more hosts. A "Single instance" is useful for small environments or For a trial it's better to select "Single Instance". A "Mutti instance is useful for better performance and I A mutti instance has following installation parts:	1 on one computer only. e Apparo Application servers test systems.		Î

4.2 Application server

Settings for the Apparo Application Server:

Apparo Configuration	tion Manager 3.755	—	\times
File Windows Services			
🗟 Save 💿 Test Configurati	on 🚺 Start Apparo 🕕 Show Application server Log	 Show Gateway Log 	
Configuration	Name	Value	
Architecture	Host name	qsdemonstration	
Application server	Tomcat start port	18000	
🗐 Qlik Sense	Tomcat connector port	9800	
File system paths	Apparo gateway HTTP port	6900	
🗐 Web security system	Apparo gateway HTTPS port	6901	
eMail security system	Apparo gateway SSL certificate file	C:\Program Files\Apparo\FastEdit\cm\certificate\ApparoServer.crt	select
Repository	Apparo gateway SSL certificate key file	C:\Program Files\Apparo\FastEdit\cm\certificate\ApparoServer.key	select
📶 License key	Logging Level	Normal	
	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 Tomcat installation that is communicat		

Apparo is automatically reusing the TLS/SSL certificate of Qlik Sense that you have specified in tab "Qlik Sense".



4.3 Qlik Sense

Settings for the already installed Qlik Sense environment:

Qlik Sense host: The name that is used for calling the Qlik Sense proxy system. It can be an external host name or internal host name.

It must be the same domain that is used for running Qlik Sense.

Apparo Configura	tion Manager 3.755	_		\times
File Windows Services				
🗄 🔛 Save 💿 Test Configurat	ion 🜔 Start Apparo 🧻 Show Application server Lo	g 🕕 Show Gateway Log		
Section Configuration	Name	Value		
Architecture	Qlik Sense host	qsdemonstration		
Application server	Qlik Sense QRS port	4242		
🖆 Qlik Sense	Qlik Sense admin domain	sad		
File system paths	Qlik Sense admin login	Administrator		
🕍 Web security system	SSL certificate file	C:\Program Files\Apparo\FastEdit\certificates\clie	ent.pfx	select
ill eMail security system	Password for SSL certificate	***		
Repository	Same host like Apparo	yes		
License key				
		Test Qlik Sense Connection		
	All definitions for your already installed and running	Nik Sansa environment		
	These settings are necessary for accessing the Qlik			
	all security groups of the current Qlik Sense user.			

Apparo Fast Edit must be able to read user data from the Qlik Sense proxy system. Apparo is asking for the security groups of the current user.

Because the Qlik Sense system is secured it is necessary to use a security certificate from the installed Qlik Sense system.

How to generate this certificate:

Please open the Qlik Sense Management Console and select "Certificates" from the left panel:

CONFIGURE SYSTEM
≡ Nodes
🔊 Engines
🗅 Printing
🗴 Proxies
🗴 Virtual proxies
Schedulers
Repositories
€ Sync rules
P Certificates



Press "Add machine name" and use the name of the Qlik Sense host that is defined in setting "Qlik Sense host" (see screenshot), e.g. MYMACHINE.mydomain.com or if it is an internal name like srv222.

Hint: Upper/lower case is important.

fachine name ↔	
O Add machine name	
After that enter the necessary password information and include secret key:	

Certificate password	* <mark></mark>
Retype password	* <mark></mark>
Include secret key	<u>~ √</u>
Export file format for certificates	Windows format

 $Certificates\ will\ be\ exported\ to\ this\ disk\ location\ on\ the\ server:\ C:\ ProgramData\ Qlik\ Sense\ Repository\ Exported\ Certificates\ Sense\ Repository\ Exported\ Certificates\ Sense\ Repository\ Sense\ Sense\ Repository\ Sense\$

Certificates will be exported to this disk location on the server:

[Installation Drive]:\ProgramData\Qlik\Sense\Repository\Exported Certificates\[name]

Now you can select the **client.pfx** file for setting "SSL certificate file".

Hint: User for login into the Qlik Sense repository service:

This Windows user must have the Qlik Sense role "RootAdmin".

If not then the login will be not possible.



4.4 File system paths

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

Apparo Configura	tion Manager 3.755		-	×
File Windows Services				
🗄 🔚 Save 📧 Test Configurati	on 🚺 Start Apparo 🕕 Show Application server Log	 Show Gateway Log 		
Section Configuration	Name	Value		
Architecture	File path to batch/executeable files	C:\Program Files\Apparo\FastEdit\user_s	cripts	select
Application server	File path to client definitions	C:\Program Files\Apparo\FastEdit\clients		select
🛑 Qlik Sense	File path to custom java classes	C:\Program Files\Apparo\FastEdit\user_s	cripts	select
📒 File system paths	Oracle Client path to tnsnames.ora	\$ORACLE_HOME/network/admin		select
🕍 Web security system				
📒 eMail security system				
Repository				
License key				
	The file system paths are used for executing of scripts	and java testing classes.		
	,			

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

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

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

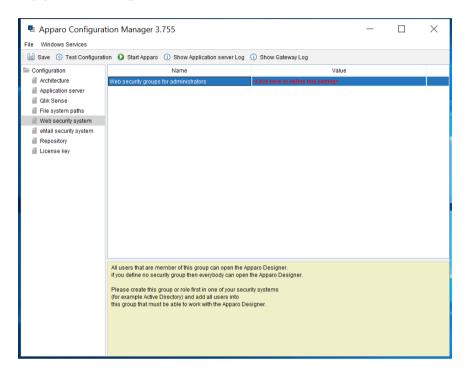
If using shares it's necessary that the Windows service of Apparo Fast Edit <u>must not use a local system account.</u>

Using a Windows Administrator account is for example a solution.

4.5 Web security system

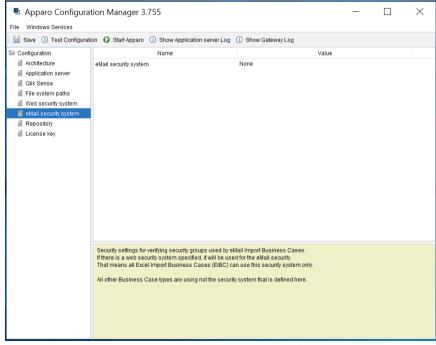
In this chapter you can define the **security group** of all users that is necessary to be able to open the Apparo Designer **with full access**.

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



4.6 eMail security system

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





4.7 Apparo Database Repository

The database connection to the Apparo repository.

The repository are many database tables in that all definitions are stored.

For testing you can use the "internal database" too.

This database is slower than a normal database like Oracle, MS SQL Server or IBM DB2 but you don't need an installation.

📱 Apparo Configura	tion Manager 3.755		_		\times		
File Windows Services							
🗄 🔚 Save 💿 Test Configural	🔚 Save 💿 Test Configuration 🚯 Start Apparo 🕕 Show Application server Log 🕕 Show Gateway Log						
🗁 Configuration	Name	Value					
Architecture	Database connection	Internal database					
Application server		_					
🗐 Qlik Sense							
🗐 File system paths							
ill Web security system							
eMail security system							
Repository							
🖆 License key							
	Following databases can be used for the Apparo Repo	sitory:			^		
	Oracle 10g-19c						
	MS SQL Server 2008-2019 IBM DB2 9-11.5						
	Internal Database						
	Apparo is using the JDBC interface to connect to the da	atabasa					
	Therefore a database client installation is not necessa						
	Internal Database: Right choice for test and developme	ant systems without cluster functionality					
	Character set:						
	The database character set can be LITE or another cha	rontarieat			~		



4.8 License key

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

You can choose the "APPARO SMALL LICENSE" too. This license is **for up to 3 named users and 10 Business Cases. It is not limited in time.**

Apparo Configurat File Windows Services	tion Manager 3.755		- 🗆	×
	on 🚺 Start Apparo 🕕 Show Application server Log	 Show Gateway Log 		
 Save () Test Configuration Architecture Application server Qilk Sense File system paths Web security system elkait security system Repository License key 	Name Type of license License key	Valu Own license key c9-ff-8b-62-96-f7-2e-7f-85-10-e3-40		F8f
	Please paste the license key for Apparo into this field. With the license key it is possible to start the business Attention: If you use a trial license key then this key is th You can see the expiration date in the Apparo Designer If you need a new license key then write to support@ap Attention: After you have entered/updated the license ke the application server with pressing button "Start Appar	ne limited. , section "About Apparo". paro.solutions y it is necessary to restart		

4.9 Starting Apparo

After you have entered all setting values it is time to start Apparo with pressing "Start Apparo" button:

Apparo Configurat	tion Manager 3.755	—	\times
File Windows Services			
🗄 🔛 Save 💿 Test Configurati	on 🚺 Start Apparo 🕧 Show Application server Log	(i) Show Gateway Log	
Seconfiguration	Name	Value	
Architecture	Type of license	Own license key	
Application server	License key	c9-ff-8b-62-96-f7-2e-7f-85-10-e3-40-16-43-c3-99-96-44-30-11-f-8f	
🗐 Qlik Sense			
File system paths			
Web security system			
 eMail security system Repository 			
License key			
License key			
		Test License Key	
	Saving configuration, 32 xml Installing configuration files Starting Apporto Please wait +	into the log to see details.	



4.10 Testing your installation

Often there are **firewalls** that are blocking the communication between client web browser and server.

Therefore, following tests are helpful:

4.10.1 Test if the Apparo Gateway is running

Open a web browser inside the server and enter following URL:

If using TLS/SSL: <u>https://localhost:6901</u>

If using http only: http://localhost:6900

You must get a response like



Your connection is not private

Attackers might be trying to steal your information from **localhost** (for example, passwords, messages, or credit cards). <u>Learn more</u> NET:ERR_CERT_COMMON_NAME_INVALID





Back to safety

Or a page with

Test Page for Apache Installation

Apache/2.4 OpenSSL

.... Then the Apparo Gateway is running fine.

If you get no response then the Apparo Gateway has troubles.



4.10.2 Test if the Apparo Gateway is accessible outside of the server

Open a web browser in a client computer and enter following URL.

Take the domain name of your Qlik Sense environment and put it into this URL. If you have installed Apparo completely on a different server then take this external name:

It must be the name of this setting:

🔚 Save 💿 Test Config	guration 🛛 🚺 Start Apparo 🗍 🕕 Show App	olication server Log () Show Gateway Log
E Configuration	Name	Value
Architecture	Host name	qliksense-demo.apparo.biz
Application server	Tomcat start port	18000
🛑 Qlik Sense	Tomcat connector port	9800
File system paths	Apparo gateway HTTP port	6900
🛑 Web security system	Apparo gateway HTTPS port	6901
🗐 eMail security system	Annara gataway QQL contificato filo	C·\Program Eilae\Annoro\EastEdittem\cartificata\AnnoroSanar et

If using TLS/SSL: <u>https://SERVERNAME:6901</u>

If using http only: <u>http://SERVERNAME:6900</u>

You must get a response like



Your connection is not private

Attackers might be trying to steal your information from **localhost** (for example, passwords, messages, or credit cards). <u>Learn more</u> NET:ERR_CERT_COMMON_NAME_INVALID

Q To get Chrome's highest level of security, <u>turn on enhanced protection</u>

Advanced

Back to safety

Or a page with

Test Page for Apache Installation

Apache/2.4 OpenSSL

.... Then the Apparo Gateway is running fine.

If you get no response then you have a firewall that is blocking ports 6900 and 6901 and it is necessary to open that first.



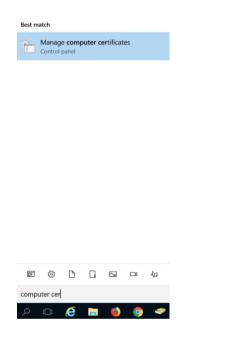
5 Qlik Sense is using https?

If your Qlik Sense environment is running with **https** then Apparo is called **automatically** using https too. In this case the Apparo Gateway need an **SSL certificate** too – same like the Qlik Sense proxy.

5.1 Importing certificate of Qlik Sense

If your Qlik Sense environment is using a certificate for using https then Apparo must use this certificate too. It must be imported into Apparo Configuration Manager.

5.1.1 Export of the Qlik Sense certificate from the certificate store



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

🚡 certlm - [Certificates - Local Com	outer\Perso	onal\Certificates]	- 0	×
File Action View Help				
♦ ♦ 2 📰 4 € X E				
🙀 Certificates - Local Computer 🔺	Issued To	· ^	Issued By	Ex
V Personal	admir	n.apparo.services	RapidSSL SHA256 CA	4/
Certificates	🙀 admir	annaro services	RapidSSL SHA256 CA - G2	5/
Enterprise Trust		Open		
Intermediate Certification		All Tasks >	Open	
Comparison of the second		Cut Copy	Request Certificate with Ne Renew Certificate with Nev	-
Client Authentication Issu		Delete	Manage Private Keys	
Preview Build Roots		Properties	Advanced Operations	>
 Remote Desktop Certificate Enrollment Rec 		Help	Export	
Smart Card Trusted Roots				
 Trusted Devices Web Hosting 				
Windows Live ID Token Iss	<			>
Contains actions that can be performe		em.		

Questions? <a>support@apparo.solutions



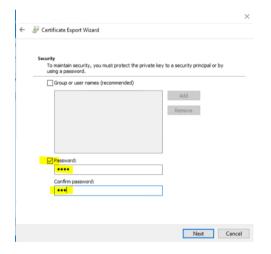
Search for you certificate, press right mouse button and select "Export".

4	Certificate Export Wizard
	Welcome to the Certificate Export Wizard
	This wizard helps you copy certificates, certificate trust lists and certificate revocation lists from a certificate store to your disk.
	ists irom a ceruncate store to your disk.
	A certificate, which is issued by a certification authority, is a confirmation of your identity and contains information used to protect data or to establish secure network connections. A certificate store is the system area where certificates are kept.
	To continue, click Next.
	Next Cancel
j.	
	₽ Certificate Export Wizard
	₽ Certificate Export Wizard
	Certificate Export Wizard Export Private Key
	Certificate Export Wizard 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 Export Wizard 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.
	Certificate Export Wizard 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?
	Certificate Export Wizard 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.
	Certificate Export Wizard 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? Nes, export the private key
	Certificate Export Wizard 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? Nes, export the private key
	Certificate Export Wizard 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? Nes, export the private key
	Certificate Export Wizard 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? Nes, export the private key
	Certificate Export Wizard 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? Nes, export the private key
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	Certificate Export Wizard 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? Nes, export the private key
	Certificate Export Wizard 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? Nes, export the private key

Export the key with the private key...



_	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)
	\checkmark 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)



Enter a new password ...

to Export			
	me of the file you	want to export	
File name:			
c:\myCertifica	ite		Browse

 \sim

.. and store it.



You have successfully completed the Certificate Export wizard. You have specified the following settings: File Name CompCertificate.ptx Export Kays File Format Ves File Format Personal Information Exchange (*.pfx	
File Name ct/myCertificate.pfx Export Keys Yes Include all certificates in the certification path Yes	
Export Keys Yes Indude all certificates in the certification path Yes	
Include all certificates in the certification path Yes	
File Format Personal Information Exchange (*.pfx	
< >	>

5.1.2 Import the certificate into Apparo

In the Apparo Configuration Manager select chapter "Application Server"...

Apparo Configurat	tion Manager 3.755	— 🗆	×
File Windows Services			
🗄 🔚 Save 💿 Test Configurati	on 🚺 Start Apparo 🕕 Show Application server Log	 Show Gateway Log 	
Difiguration	Name	Value	
Architecture	Host name	qsdemonstration	
Application server	Tomcat start port	18000	
🗐 Qlik Sense	Tomcat connector port	9800	
File system paths	Apparo gateway HTTP port	6900	
🗑 Web security system	Apparo gateway HTTPS port	6901	
🖆 eMail security system	Apparo gateway SSL certificate file	C:\Program Files\Apparo\FastEdit\cm\certificate\ApparoServer.crt	select
Repository	Apparo gateway SSL certificate key file	C:\Program Files\Apparo\FastEdit\cm\certificate\ApparoServer.key	select
🕍 License key	Logging Level	Normal	
	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 Tomcat installation that is communicat		

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



•	Apparo Conf	iguratio	on Manager 3.	755			_		\times
File	Windows Services								
: 日 :	Save 💿 Test Cor	nfiguration	n 🚺 Start Apparo	Show Application server Log	g 🕕 Show Gateway Log				
🗁 Co	nfiguration			Name		Value	_		
í	Architecture	Impo	rt SSL Certifica	to		×			
ź.	Application server	impo	Tr 55E Certifica	te		~			
í	Qlik Sense		O al a at O	Ol and Ender File was supplied to see	fer transfer Onterview				
í	File system paths		Select S	SL certificate file you want to use	for Apparo Galeway.				
í	Web security syste	SSL ce	rtificate file			Select			
í	eMail security syst		ord for SSL certificate				ertificate\Apparc	Server.crt	select
í	Repository	Passw	ord for SSL certificate				ertificate\Apparc	Server.key	select
í	License key								
		Impo	rt Cancel						
	l	<u> </u>		· · · · · · · · · · · · · · · · · · ·	-,				
			Maximum main mem		2048				
			Windows service use		<use default="" td="" the="" wind<=""><td></td><td></td><td></td><td></td></use>				
			Windows service use		<use default="" td="" the="" wind<=""><td>ows system us</td><td>er></td><td></td><td></td></use>	ows system us	er>		
			Session timeout in m		60				
			Runtime form timeou		30				
			Runtime ping period		24				
			Max count of missed		5				
		1	Font-family of overridi	ng font	<click define="" here="" td="" th<="" to=""><td>nis setting></td><td></td><td></td><td></td></click>	nis setting>			
					Import SSL Certificate				
				tion has at least 1 application se					
			That's a Apache Ton	ncat installation that is communi	cating directly with the Appa	aro Gateway.			

Select your certificate file, enter the password and press button "Import".

After that please press the "Start Apparo" button for restarting Apparo.



6 Adding Qlik Sense Extensions

Apparo Fast Edit is using Qlik Sense Extensions.

Therefore, they must be first installed into your existing Qlik Sense system after you hv installed Apparo.

Open your Windows Explorer in [APPARO_HOME]\FastEdit\extensions

You can see:

📙 📝 📜 🖛 exte	nsions				
File Home	Share View				
Pin to Quick Copy Pa access	Cut Cut Copy path	Move Copy to* to* Pelete Rename	New item •	Properties	 Select all Select none Invert selection
Clipbo	bard	Organize	New	Open	Select
\leftarrow \rightarrow \checkmark \uparrow	> This PC > Local Di	isk (C:) » Program Files » Apparo	> FastEdit > extensi	ons	
📌 Quick access	Name	^	Date modified	Туре	Size
This PC	ApparoE	xtensions	1/29/2021 8:13 PM	Compressed (zipp	78 KB
🧊 3D Objects					
📃 Desktop					
🖺 Documents					
🖊 Downloads					
🎝 Music					
Pictures					
🛃 Videos					
🐛 Local Disk (C:)					
🔮 Network					

Please open now the Qlik Sense Management Console and select "Extensions":

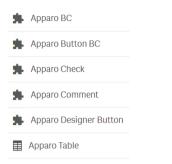


Please import now the file ApparoExtensions.zip



After that please open Qlik Sense Hub and create a new App.

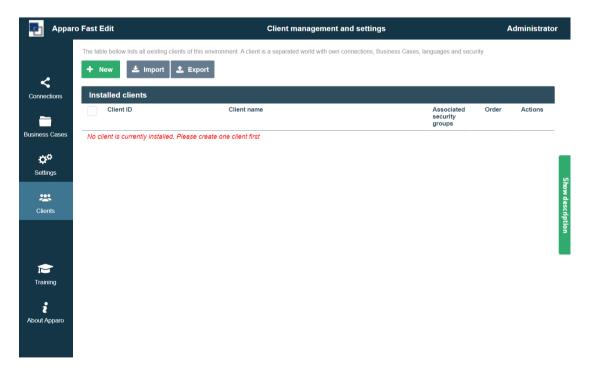
Now you can see some new Apparo widgets:



Drag & Drop the new widget "Apparo Designer" into your sheet and press the button.

Apparo Designer	_
Apparo Designer	
S	-0

You should see:





7 Installation Apparo clients

0	Preparation
	 Analysing environment Creation of a database user for the Apparo repository
2	Installation of Apparo Fast Edit
3	Configuration of Apparo Fast Edit Configuration using the Apparo Configuration Manager
4	Adding Apparo Extensions into Qlik Sense
5	Installing clients



Now it is necessary to install the clients.

	Fast Edit	Client management an	nd settings	Administrat
-	The table bellow lists all existing cli	ents of this environment. A client is a separated world with own co	nnections, Business Cases, languages and security	t.
ا ج	+ New 🛓 Import	1 Export		
nections	Installed clients			
-	Client ID	Client name	Associated security groups	Order Actions
ess Cases	No client is currently installed.	Please create one client first		
¢¢				
ttings				
*				
lients				
aining				
aining				

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

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



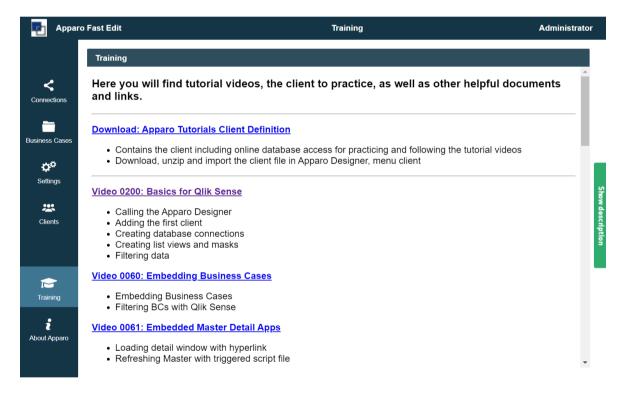
8 Training movies & documentation

You can find all text documentations in

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



You can find all training movies in the Apparo Designer, choosing chapter "Training":



General documentation about Apparo Fast Edit:

http://doc.apparo.solutions



9 Firefox browser, HTTPS and self signed certificates

If you use a **self-signed certificate** then Firefox is complaining about that and need an exception.

Please use the domain that is used for calling Qlik Sense and use the http-port for Apparo. Default is 6901.

Open the Firefox options and look for:

When a server requests your personal certificate	
<u>Select one automatically</u>	
Ask you every time	
Query OCSP responder servers to confirm the current validity of certificates	View <u>Certificates</u>

Press the "View Certificates..." button.

Your Certificates People	Servers Authorities			
ou have certificates on file that	identify these servers			
Certificate Name	Server	Lifetime	Expires On	
, DigiNotar				
DigiNotar Root CA	*	Permanent	Monday, March 31, 2025	
DigiNotar B.V.				
DigiNotar PKloverheid CA C)rgani *	Permanent	Monday, March 23, 2020	
r qs-demo				
qs-demo	localhost:4244	Permanent	Thursday, April 20, 2028	
qs-demo	qs-demo.sad.com:443	Permanent	Thursday, April 20, 2028	
qs-demo	qs-demo.sad.com:4244	Permanent	Thursday, April 20, 2028	
qs-demo	34.246.242.163:443	Permanent	Thursday, April 20, 2028	
View Export	Delete Add Exception			

Now press button "Add Exception...":

Enter https://<domain>:6901 and press the "Get Certificate" button.



Add Security Exception		\times
You are about to override how Firefox identi Legitimate banks, stores, and other public		
Location: https://qs-demo:6901]	Get Certificate
		⊻iew
Permanently store this exception	Confirm Security Exception	Cancel
dd Security Exception		×
dd Security Exception You are about to override how Firefox identi Legitimate banks, stores, and other publi		×
You are about to override how Firefox identi Legitimate banks, stores, and other publi		× Get Certificate
You are about to override how Firefox ident Legitimate banks, stores, and other publi Location: https://qs-demo.5901 This site attempts to identify itself with invalid inform	c sites will not ask you to do this.	
You are about to override how Firefox ident Legitimate banks, stores, and other public Location: https://qs-demo.6901 This site attempts to identify itself with invalid inform Unknown identity The certificate is not trusted because it hasn't been vi	c sites will not ask you to do this. ation.	Get Certificate View
You are about to override how Firefox ident Legitimate banks, stores, and other public Location: https://qs-demo.6901 This site attempts to identify itself with invalid inform Unknown identity The certificate is not trusted because it hasn't been vi	c sites will not ask you to do this. ation.	Get Certificate
You are about to override how Firefox ident Legitimate banks, stores, and other public Location: https://qs-demo.6901 This site attempts to identify itself with invalid inform Unknown identity The certificate is not trusted because it hasn't been vi	c sites will not ask you to do this. ation.	Get Certificate
You are about to override how Firefox ident Legitimate banks, stores, and other public Location: https://qs-demo.6901 This site attempts to identify itself with invalid inform Unknown identity The certificate is not trusted because it hasn't been vi	c sites will not ask you to do this. ation.	Get Certificate
You are about to override how Firefox ident Legitimate banks, stores, and other publi Location: [https://qs-demo.6901 This site attempts to identify itself with invalid inform Unknown identity The certificate is not trusted because it hasn't been vi	c sites will not ask you to do this. ation.	Get Certificate
You are about to override how Firefox ident Legitimate banks, stores, and other publi Location: [https://qs-demo.6901 This site attempts to identify itself with invalid inform Unknown identity The certificate is not trusted because it hasn't been vi	c sites will not ask you to do this. ation.	Get Certificate
	c sites will not ask you to do this. ation.	Get Certificate
You are about to override how Firefox ident Legitimate banks, stores, and other publi Location: [https://qs-demo.6901 This site attempts to identify itself with invalid inform Unknown identity The certificate is not trusted because it hasn't been vi	c sites will not ask you to do this. ation.	Get Certificate
You are about to override how Firefox ident Legitimate banks, stores, and other publi Location: [https://qs-demo.6901 This site attempts to identify itself with invalid inform Unknown identity The certificate is not trusted because it hasn't been vi	c sites will not ask you to do this. ation.	Get Certificate
You are about to override how Firefox ident Legitimate banks, stores, and other publi Location: [https://qs-demo.6901 This site attempts to identify itself with invalid inform Unknown identity The certificate is not trusted because it hasn't been vi	c sites will not ask you to do this. ation.	Get Certificate

Press "Confirm Security Exception".



10 Browser requirements

10.1 Supported browsers

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



11 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.

11.1 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 (or a list) 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



11.2 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		

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



12 Support

If you need support please write an eMail to:

support@apparo.solutions