

Lasernet 10.

Lasernet Config Server and Deployment 10

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1 Introduction.

1.1 Who Should Use This Guide?

This guide is intended to provide users with an overview of Lasernet server configuration and deployment.



2 Terms of Use.

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3 Overview.

3.1 Running Service for Lasernet Config Server

A single service named Lasernet Config 10 is installed by the Lasernet Server 10 installer and must be running for the Lasernet Config Server.

🔍 Services			-		×
File Action View	Help				
(+ +) 🖬 🖾 🖸	à 🗈 🛛 🖬 🕨 🗉 🕪				
Services (Local)	Name	Description	Status	Startup Typ	oe ^
	🧠 Lasernet Config 10	The Lasernet Config service manages all Lasernet configurations, servers and users.	Running	Automatic	
	🤹 Lasernet Config 9	The Lasernet Config service manages all Lasernet configurations, servers and users.	Running	Automatic	~
	<				>
	Extended Standard				

Note: The Lasernet Config 9 service can run on the same server at the same time.



3.2 Lasernet Config 10

This service manages all Lasernet configurations and act as a relay proxy between

- Lasernet Developer
- Lasernet Client app
- Lasernet Web Client
- Lasernet OCR
- Lasernet Meta

and the Lasernet Service(s).

3.2.1 Log file

The log file(s) for the config server are located in:

C:\ProgramData\Formpipe Software\Lasernet 10\Config\Default\Config.Inlog

The config.Inlog contains status information about:

- Database connections
- Deployments
- Expiring of tokens
- Migrations
- Start and stop of config service
- Transactions between client apps and server

3.2.2 Server setting file

The settings for the Lasernet Config server are located in:

C:\ProgramData\Formpipe Software\Lasernet 10\Config\Default\ServerSettings.json

and the config service settings are grouped in to:

- Authentication
- Bindings
- Port
- Servers

3.2.2.1 Authentication

Type of authentication can be configured to either Lasernet local or external users (OpenID Connect), like Microsoft Entra ID. In order to configure Lasernet for Microsoft Entra ID authentication please read the "Lasernet Configuring Microsoft Entra ID Authentication" guide.



```
"Name": "<Tenant name 1>",
    "OIDCMetadataEndpoint": "<OpenID Connect metadata document URI>"
    },
    "Backup": {
        "ClientId": "<Application (client) ID>",
        "Name": "<Tenant name 2>",
        "OIDCMetadataEndpoint": "<OpenID Connect metadata document URI>"
        }
    },
    "Type": "Local"
    }
}
```

The Authentication object contains the following properties:

Property	Туре	Description
Туре	String	Tells Lasernet whether to use local or external users (OpenID Connect). Can be set to either 'Local' or 'External'.
Providers	String	Contains a list of named authentication provider objects. When external configuration is used you must add at least one provider. One of the providers must be named "Default" and will be used if the user doesn't specify a provider when logging in.

The format of a Provider object is as follows:

Property	Description
ClientID	Contains the Application (Client) ID identifying the App registration in Microsoft Entra ID.
OIDCMetadataEndpoint	Contains the URI of the OpenID Connect Metadata document for the Microsoft Entra ID tenant. The OpenID Connect Metadata document provides Lasernet with the information required to validate the JWT tokens issued by Microsoft Entra ID.

It is possible to configure several different providers. In order to authenticate using a different provider, the user has to specify the name of the configured provider when attempting to log in.

3.2.2.2 Bindings

It is possible to configure several hostnames to bind with a local server certificate and obtain a secured connection via the IP address, the local host name or a DNS name.



```
"Thumbprint": "<thumbprint>"
    "PFX": "<path+filename>"
    "Password": "<password>"
    }
  ],
  }
}
```

If no bindings are configured Lasernet will auto-generate self-signed certificates for 'localhost', '<machine name>' and (if applicable) '<machine name>.<active directory domain name>'.

Lasernet can use certificates installed in the Windows certificate store (under Computer certificates) or certificates stored on disk as PFXs.

The Bindings object is an array of Bindings with the following format:

Property	Туре	Description
Hostname	String	(Required) The hostname for which to bind a certificate
Thumbprint	String	(Optional) This will force Lasernet to use the certificate with the specified thumbprint in the Windows Certificate store.
PFX	String	(Optional) A path and filename to the certificate (including private key) stored in PFX format.
Password	String	(Required when using PFX) Specifies the password for the PFX file.

If only Hostname is specified, Lasernet will attempt to find a suitable certificate for the specified hostname in the Windows Certificate store. If no suitable certificate is found, Lasernet will generate a self-signed certificate for this hostname.

3.2.2.3 Port

The port number to run the config server. The default port number is 33443, but can be configured to any port number, which is not in conflict with other services running on the Windows server.

```
{
    "Service": {
        "Port": <port number>,
    }
}
```

The Port object contains the following property:

Property	Туре	Description
Port	String	Tells Lasernet which port number to run the Lasernet Config server at.

To connect to the Lasernet Config web site, from a browser, using default port number 33443, use this URL:



https://[hostname]:33443/lasernet/config

To connect to the Lasernet Config web site, from a Lasernet app, using default port number 33443, use this URL:



To connect to the Lasernet Config web site, from a browser, using port number 443, use this URL:

https://[hostname]/lasernet/config

To connect to the Lasernet Config web site, from a Lasernet app, using default port number 443, use this URL:



3.2.2.4 Servers

The list of server instances, including port number can either be maintained from the Lasernet Config web site or from the Servers object.

Note: The Servers object can be excluded if you would like to maintain these settings from the Lasernet Config web site:



Lasernet Config					administrator
💅 Deploy 🕒 Add 🎄 Edit 🖨 Remove					
Tools	Instance	Server	Port	Configuration	Revision
Servers	Default	DESKTOP-G70LUJV	3279		
	Prod	DESKTOP-G70LUJV	3280		
Dictionary Servers					
Print Servers					
Configurations					
Distory					
202 Users and Groups					
Security Roles					
Apps					

If a Servers object exist, the server settings on the web site are in read-only mode.

```
{
   "Service": {
       "Servers": {
           "<InstanceName1>": {
                "ClientSecret": "<ClientSecret>",
               "Insights": {
                   "Performance": <Boolean>,
                   "Transactions": <Boolean>
               },
               "Port": <PortNumber>,
               "Server": "<Hostname>"
           "ClientSecret": "<ClientSecret>",
               "Insights": {
                   "Performance": <Boolean>,
                   "Transactions": <Boolean>
               },
               "Port": <PortNumber>,
               "Server": "<Hostname>"
           }
       },
       "DictionaryServers": {
           "Dictionary": {
               "Server": "<Hostname>",
               "Port": <PortNumber>
           }
       }
    }
```



To mitigate a "server-side request forgery" the security level is increased by optionally maintaining the server list in the ServerSettings.json configuration file.

The Servers object is an array of server instances with the following format:

Property	Туре	Description
Instance name	String	(Required) The name for each instance can be found and copied from the Lasernet Server License Manager. This was created when the instance was added to the server.
Client secret	String	(Required) The client secret for each instance can be found and copied from the Lasernet Server License Manager. The client secret was created when the instance was added to the server
Insights	String	(Optional) A Boolean, set to false (default) or true, to activate counters for Performance or Transactions on the Lasernet Server. The counters can be viewed in the Lasernet Monitor.
Port	Number	(Required) The port number for each instance can be found and copied from the Lasernet Server License Manager. The port number was created when the instance was added to the server
Server	String	(Required) The name of a Lasernet Server to run one or several instances. An active connection between the Lasernet Config Server and to the Lasernet Server instance is required to deploy a configuration.

3.2.2.5 Dictionary Servers

}

The Dictionary Servers object is optionally used by the OCR Engine, which is a part of the Lasernet Input Management solution.

The list of Dictionary server instances, including port number can either be maintained from the Lasernet Config web site or from the DictionaryServers object:

Property	Туре	Description
Instance name	String	(Required) The name for each instance can be found and copied from the Lasernet Server License Manager. This was created when the Dictionary instance was added to the server.
Port	Number	(Required) The port number for each instance can be found and copied from the Lasernet Server License Manager. The port number was created when the Dictionary instance was added to the server. It is recommended to use the same port number as configured for the Lasernet Config server (default 33443)
Server	String	(Required) The name of a Lasernet Server to run one or several Dictionary instances. An active connection between the Lasernet Config Server and to the Lasernet Server instance is required to connect to the Dictionary Server database.

3.2.2.6 Example of a server setting file

In the following you can find an example where we have configured the Lasernet Config server and Lasernet Services with the following parameters



Property	Description
Authentication	End-users are using external authentication and can log in with their Microsoft Entra ID user login added to the listed provided from the Lasernet applications.
Bindings	End-users can access the Lasernet Config server via a secured connection via the listed IP address and hostnames.
Port	Lasernet Config server is configured to communicate on port number 443.
Servers	Lasernet server instances, named Default and Prod, are configured to communicate on port number 3279 and 3280. Lasernet Dictionary server instance is configured to communicate on port number 443.

```
{
    "Service": {
        "Authentication": {
            "Providers": {
                "Default": {
                    "ClientId": "999ee99f-9fc9-9a99-ad99-99999fd099e9",
                    "Name": "Formpipe Software AB tenant",
                    "OIDCMetadataEndpoint": "https://login.microsoftonline.com/9999be9c-
9c99-99bb-a6de-c999db099a99/v2.0/.well-known/openid-configuration"
                }
            },
            "Type": "External"
        },
        "Bindings": [
            {
                "Hostname": "192.168.99.1"
            },
            {
                "Hostname": "localhost"
            },
            {
                "Hostname": "ln-win2019-test"
            },
            {
                "Hostname": "ln-win2019-test.northeurope.cloudapp.azure.com"
            }
        ],
        "Port": 443,
        "Servers": {
            "Default": {
                "ClientSecret": "9CAZTx9+svqBq9YvMOWzX/9QBRu999zLAJthBh1US99=",
                "Insights": {
                    "Performance": true,
                    "Transactions": false
                },
                "Port": 3279,
                "Server": "ln-win2019-test"
            },
"Prod": {
```



```
"ClientSecret": "Ix+XAKvNNJ99CRyK99gc9SW00FFq9Rts9N9gbr90wcY=",
                 "Insights": {
                     "Performance": false,
                     "Transactions": false
                 },
                 "Port": 3280,
                 "Server": "ln-win2019-test"
            },
             "DictionaryServers": {
                 "Dictionary": {
                     "Port": 443,
                     "Server": "ln-win2019-test"
                 }
            }
        }
    }
}
```

3.3 Lasernet Application Process

This chapter gives an overview of the Lasernet application process as well as information on how to manage, configure and run it.

Lasernet Developer 10: one (single client) or several computers (multiple clients) to create and build a configuration.

Lasernet Config Server 10: a single server to store configurations, server settings, revisions, history, users and groups and security roles. Access to a Microsoft SQL Server is required.

Lasernet Server 10: one (single) server to run the production service instance or several servers to setup an enterprise environment for the development, staging and backup servers. Access to a Microsoft SQL Server is required.

The applications and service can be installed on a single computer, but multi-server environment is recommended.

Note: Lasernet is pre-installed by default with a Microsoft SQL Server 2017 LocalDB. Migrating to Microsoft SQL Server is recommended for enterprise users backing up servers.





The listed port numbers are default values and can be changed in:

C:\ProgramData\Formpipe Software\Lasernet 10\Config\Default\ServerSettings.json

An open connection between the listed applications and services is required.

3.4 Lasernet Config Server

Sign in	× +		0	-	×
\leftrightarrow \rightarrow C (https://localhost:33443/lasernet/config				:
	Sign in				
	admin				
		Next			
		Lasernet 10.1.0 (Build: 54)			



To access the Lasernet Config Server use the following URL: https://[servername]:33443/lasernet/config



3.4.1 Disabling Internet Explorer Enhanced Security Configuration

On some computers you may need to disable the IE Enhanced Security Configuration in the Server Manager \rightarrow Local Settings.

More information can be found here:

https://support.microsoft.com/en-au/help/815141/internet-explorer-enhanced-security-configuration-changes-the-browsing

Supported browsers are: Microsoft Edge, Google Chrome, Mozilla Firefox

3.4.2 Group policy to "disable" OCSP checking

On some computers, not connected to the Internet, you may need to change the OCSP request timeout in the Server Manager \rightarrow Local Group Policy Editor \rightarrow Local Computer Policy \rightarrow Computer Configuration \rightarrow Windows Settings \rightarrow Security Settings \rightarrow Public Key Policies

- Object Type: Certificate Path Validation Settings
- Tab: Network Retrieval
- Define these policy settings: Active
- Default URL retrieval timeout: 1 second (Default: 15 seconds)
- Default path validation cumulative retrieval timeout: 1 second (Default: 20 seconds)



4 Lasernet Config Server: Getting Started.

4.1 Login Page

Apps 📙 Fo	rmpipe 📙 Developer	🔝 Reading l
	Change password	
	Current password	_
	New password	_
	Confirm password	_
	Next	7)

When logging in for the first time, create a new password for the admin user:

User: admin

Current password: [leave empty]

New password: [choose a password]

Confirm password: [choose a password]

You can now set a password for the admin account. The password must be changed when you log in to the config website for the first time.

4.1.1 Reset the Admin Password

If you forgot the password, you can always reset it. It requires that you have admin rights on the server, where the Lasernet Config Server is installed

You must run the following steps:

1. Run Services and stop your Lasernet Config 10 and Lasernet 10 Service(s).



🔍 Services										
File Action View Help										
♦ ♥ ■ 0	(= →) 💼 🛱 💀 🛂 📷 🕨 🖩 II 🕨									
Services (Local)	Name	Status Startup Type Lo		Log On As						
	🗛 Lasernet 10 (Default:3279)		Automatic	Local System						
	Lasernet 10 (Prod:3280)		Automatic	Local System						
	🔐 Lasernet Config 10		Automatic	Local System						

2. Run the Task Manager and click the Details tab.

嵶 Task Manage	🖓 Task Manager - 🗆 🗙										
<u>File</u> <u>Options</u> <u>V</u> ie	ile <u>O</u> ptions <u>V</u> iew										
Processes Perfe	ormance	App history	Startup	Users	Details	Services					
Name	Name PID User name CPU CPU time Working set (memory)) ^	
🔳 sqlceip.exe						5984	SQLTELEME	00	00.00.02	72.484 K	ζ
sqlservr.exe		al tools				5972	MSSQL\$LN	00	00.05.53	257.804 K	(
sqlwriter.exe		d lask	5			5624	SYSTEM	00	00.00.00	7.020 K	ζ
🔳 StartMenuExp	er En	a process tree				10348	Torben	00	00.00.03	81.616 K	:
svchost.exe	Pro	ovide feedbac	ĸ			648	SYSTEM	00	00.00.15	31.620 K	ζ
🔳 svchost.exe	Se	t priority	>			1168	NETWORK	00	00.00.26	16.664 K	ζ
svchost.exe	Se	t affinity				1216	SYSTEM	00	00.00.07	8.604 K	ζ
svchost.exe	An	alyze wait cha	in			1456	LOCAL SERV	00	00.00.00	6.588 K	:
svchost.exe	UA	C virtualizatio	n			1464	LOCAL SERV	00	00.00.05	11.204 K	0
svchost.exe	Cre	eate dump file	2			1492	LOCAL SERV	00	00.00.07	10.708 K	(
svchost.exe	0	an file le satis				1624	SYSTEM	00	00.00.00	9.792 K	:
svchost.exe	Op		0M			1636	LOCAL SERV	00	00.00.00	11.472 K	:
svchost.exe	Se	arch online				1740	LOCAL SERV	00	00.01.03	19.320 K	:
svchost.exe	Pro	operties				1784	SYSTEM	00	00.00.02	14.596 K	ζ
svchost.exe	Go	o to service(s)		ļ		1856	SYSTEM	00	00.00.00	7.924 K	C 🗸
<											>
A Fewer <u>d</u> eta	Fewer <u>d</u> etails End task										

3. Select the sqlservr.exe, right click and select End task to kill the process. Continue this process for any sqlserver.exe running on the server.

Note: This step is only needed when using SQL Server LocalDB for the Lasernet Config server.

🔂 Add 👻 🤹	Edit 💿 Remove 🐘 Activate 🐘 Deactivate 🦚 Reactivate 📄 Copy to clipboard 🚽 Import d	emo license 🛛 💉 Offline 🕞
Instance	SQL Server properties for Lasernet Config service X	Mode
Derault Prod Development Dictionary Lasernet Config	Backend:	Static Static
	OK Cancel	



4. Run a Windows command prompt with admin rights

5. Change the directory to Lasernet 10 installations folder cd C:\Program Files\Formpipe Software\Lasernet 10\

6. Run *LnConfig.exe* in the command prompt with the following parameter:

LnConfig.exe -reset-admin-password

Note: This can generate a list of database errors in. In the fact that the database is no longer in use, by the sqlservr.exe process, means that it is now accessible for a password reset.



As a result, a new password for the admin account is generated and shown in the console. This password must be changed when logging in to the config server web site next time.

7. Start your Lasernet Config 10 and Lasernet 10 Service(s).

Note: The sqlserver.exe processes will automatically start again when Lasernet Config 10 and Lasernet 10 Service(s) are started.



4.2 Home

The web interface of the Lasernet Config Server has the following sections:



Name	Description
Servers	Manage name of Lasernet instances, servers, port numbers and client secrets.
Dictionary Servers	Manage name of Dictionary Servers, hostname and port number to be used by the OCR Editor and OCR Engine.
Print Servers	Manage name of Windows printer servers and connection strings for printing via cloud or on-premise.
Configurations	Shows all the available configurations.
History	Allows you to view the deployment history.
Users and groups	Allows viewing and editing names of local users and groups.
Security roles	Allows you manage security roles for Lasernet Developer and Client
Apps	Allows you to manage access to web applications and services.



5 Workflow.

5.1 Lasernet Server License Manager

Add and license for your instances running on the Lasernet 10 server via the Lasernet Server License Manager.

	🔂 Add 🛛 🎝 Edit 🔵 Rer	nove 🛛 🔊 🖓	Activate	Deactivate 🛞 Reactivate 🛛 📋 Copy to	clipboard 🛛 📥 Import de	emo license 🛛 💰	V Offli	ne 🝷
I	Lasernet Service	Port	Туре	Activation Code	Expires	Mode		
C	Dictionary Service	3279	Service	SRV-5XFY-2YPH-****	2029-12-31	Static		
Pr	od	3280	Service					
La	sernet Config		Config					
- 25							_	~
9	Services					_	Ц	×
Fil	e Action View Help							
1	🔶 🔲 🗟 🙆 📰 🕨	■ ▶						
1000		A						

Services (Local)	Name	Description	Status	Starl ^	
	😂 Lasernet 10 (Default:3279)				
	🖏 Lasernet 10 (Prod:3280)			Autc	
	🖳 Lasernet Config 10	The Lasernet Config service manages all Lasernet configurations, servers and users.	Running	Autc	
	🤹 Lasernet Print Capture 10	The Lasernet Print Capture service provides a virtual printer for creating Lasernet overlays.	Running	Autc	

We recommend that you install and run your development and production services on different machines. The image above shows all the Lasernet services running on the same server.

By default, Lasernet Config Server connects to the Microsoft SQL Server 2017 LocalDB database to store configurations, revisions and deployment history log.

The database and repository for the Lasernet Config Server are installed in here:

C:\ProgramData\Formpipe Software\Lasernet 10\Config\Default\Databases

We recommend that enterprise users backup this folder or replace it with a Microsoft SQL Server standalone edition.

You can use the Lasernet Sever License Manager at any time to migrate the Lasernet Configuration data from the Microsoft SQL Server 2017 LocalDB to the Microsoft SQL Server. Select the Lasernet **Config SQL Server** instance, click Edit and SQL Server Standalone with the required connection, authentication and database



🔒 Lasernet License M	lanager 10)					- 0	×
Add 🗸 🎝 Add	C Rem	ove 🛛 🔊 🗛	Activate Dea	octivate 🔊 Reactivate	Copy to clipboard	I 🔶 Import de	mo license	Ŧ
Instance		Port	Туре	Activation Code		Expires	Mode	
Default	SQL Serve	er propertie	es for Lasernet C	onfig service		×	Static	
Dictionary Lasernet Config	Backend:		ver LocalDB	DL Server Standalone			State	
Lasernet Developer	SQL Se	rver					Static	
Found available activ	Server:							
	Username	2:						
	Password	:						
	Database	:						
	Шт	est						
					ОК	Cancel		

More information about creating a database in Microsoft SQL Server can be found later in this manual.



5.2 Servers

5.2.1 List of Servers

A list of servers added can be accessed via the Servers tab.

Lasernet Config					administrator
🚀 Deploy 🛛 🕂 Add 🔹 Edit 🗲	Remove				
Tools	Instance	Server	Port	Configuration	Revision
Servers	Default	DESKTOP-G70LUJV	3279		
	Prod	DESKTOP-G70LUJV	3280		
A Z Dictionary Servers					
Print Servers					
Onfigurations					
History					
2					
Security Roles					
Apps					
					1

Use the command buttons to manipulate items in the list:

- Click Add to add a server
- Select Click Remove to remove a server.

5.2.2 Add Server

You can add a server to the Lasernet Config Server by clicking the **Add** button on the <u>Servers</u> page. This will display the Edit Server Instance dialog.



Lasernet Config						administrator
💉 Deploy 🛛 🚺 Add 🔹 Edit 🧲	Remove					
Tools	Instance		Edit Server Instance	×	guration	Revision
Servers	E Default	👩 🕥 🔇)		net Output Management	Patched
	Prod	General Insights Configu	uration History		net Output Management	15
Dictionary Servers						
Print Servers		Instance:	Default			
- ministricis		Server:	DESKTOP-G70LUJV			
Configurations		Client secret	8CA7TyS+syaBa5YyMOW/2X/0OBBu471zLA ItbBb1US	48=		
() History		cheft secret	00121051310000111101120000111105			
U						
202 Users and Groups						
Security Roles						
Apps						
				OK Cancel		

When entering data, please note that instance names are unique and cannot be changed; they can be only removed.

The hostname and port number can be changed at any time. Both the host and port must have an active connection to the server when a configuration is deployed or patched.

The client secret for each instance can be found and copied from the Lasernet Server License Manager. This was created when the instance was added to the server.

🔒 Lasernet Server License	Manager 10		ř
🔂 Add 👻 🏟 Edit 🔵	Lasernet Service Properties X	Copy Secret to	-
Instance Default Prod Dictionary Lasernet Config	Client Secret 8CAZTx5+svqBq5YvMOWzX/0QBRu471zLAJthBh1US48=	Clipboard Static Static	۲ ۱
	OK Cancel	Generate Secret	J
Found available activation s	erver.		.::

5.2.3 Remove Server

You can remove a server from the Lasernet Config Server by clicking the **Remove** button on the <u>Servers</u> page.

You are prompted to confirm your action before the server is removed.



Lasernet Config					administrator
💉 Deploy 🛛 🔂 Add 🗱 Edit 🧲	Remove				
Tools	Instance	Server	Port	Configuration	Revision
E Sanuare	E Default	DESKTOP-G70LUJV	3279	Lasernet Output Management	Patched
. Servers	Prod	DESKTOP-G70LUJV	3280	Lasernet Output Management	15
Dictionary Servers					
Print Servers		Remove Server Instance	×		
Onfigurations		Are you sure you wish to remove 'Default'?			
History					
2		OK	Cancel		
Security Roles					
Apps					

Services installed on the Lasernet Server are not removed after a server instance is removed from the Lasernet Config Server.

Please note that you are not able to deploy or patch to a server instance after removing it.

5.2.4 Insights

For each server instance you can activate the **Performance** and **Transactions** counters.

Edit Server Instance	×
💿 🚺 🔕 🔕	
General Insights Configuration History	
🕑 🕼 Performance	
✓	
	OK Cancel

Insights will collect system details for the selected server instance when running jobs through Lasernet. Start the Lasernet Monitor, select the server instance and the **Performance** tab to show system details for the latest 24 hours.



Important: You must manually restart the Lasernet Server Instance, in the Windows Services app, before the selected settings will have impact on the selected Lasernet Server Instance.

5.2.4.1 Performance

Activate **Performance** to show details for:

- Lasernet CPU
- System CPU
- Lasernet Workset Set
- Lasernet Memory Load
- Lasernet Handles



5.2.4.2 Transactions

Activate Transactions to show details for:

- Lasernet Active Jobs
- Lasernet Job Database (Monitor app only)







5.3 Configurations

5.3.1 New Configuration

To create a new configuration, follow the steps listed below:

1. Launch the Lasernet Developer.



2. Enter your credentials and then click **Connect**.



3. Enter your credentials and then click **Connect**.

	ormpipe. asernet		- x
	Sign in		
	Username		
	Password		
		Next	
E Back			



4. On the Start screen, click New configuration....



5. On the **New Configuration** screen, enter the required data and then click **OK**.

	ormpipe. asernet	-	×
New Config	uration		
Configuration Name:	Lasernet Output Management		
Description:	How to create a configuration in Lasernet		
Server:	Default		
Default Regional Profile:	Lasernet standard profile		r
Back		▶ <u>O</u> K	

As a result, a new configuration is deployed to the Lasernet Config Server as 'revision 1'.

A checked-out copy of the configuration is stored for your Windows user on the local computer at this location:

C:\Users\[WindowsUser]\AppData\Local\Formpipe Software\Lasernet 10\Developer\Configurations

Important: Uncommitted objects are stored in this location. If you do not have access to this folder, they will not be committed.



5.3.2 Import Configuration

You can import an external configuration (*lasernet.Inconfig*) from a file, if coming from an older version of Lasernet.

Select a configuration							×
$\leftarrow \ \ \rightarrow \ \ $	ents	> Formpipe Software > Lasernet 9 > Sample	Setup ~	Ö	,○ Search	Sample Setup	
Organize 🔻 New folder						BH 🔻 🔲	?
Local Disk (C:)	^	Name	Date modified	Тур	e	Size	
SWinREAgent		📕 Lasernet Output Management.Inconfigx	03/12/2020 10.39	LN	CONFIGX File	5.324 KB	
Development							
DRIVERS							
- Intel							
Lasernet							
OneDriveTemp							
PerfLogs							
Program Files							
Program Files (x86)							
ProgramData							
Temp							
Users	1						
Windows	~						
File name: Lasernet Output Management.Inconfigx	-				Lasernet cor	nfigurations (*.In	coi ~
					0000	Cane	al
					Open	Canc	ei

In addition, you can also import configurations exported from Lasernet 10 ([name].Inconfigx).

The Lasernet 10 installer includes a sample setup which can be imported from here:

C:\Users\Public\Documents\Formpipe Software\Lasernet 10\Sample Setup\Lasernet Output Management.Inconfigx

Select a configuration					×
\leftarrow \rightarrow \checkmark \uparrow \bigcirc Local Disk (C:) \Rightarrow Users \Rightarrow Public \Rightarrow Public	Document	s > Formpipe Software > Lasernet 10 > Sampl	e Setup 🗸 🗸	ට 🔎 Search	Sample Setup
Organize 👻 New folder					📰 🕶 🔟 🕜
🏪 Local Disk (C:)	^	Name	Date modified	Туре	Size
SWinREAgent		Lasernet Output Management.Inconfigx	03/12/2020 10.39	LNCONFIGX File	5.324 KB
Development					
DRIVERS					
Intel					
Lasernet					
OneDriveTemp					
PerfLogs					
Program Files					
Program Files (x86)					
ProgramData					
Users					
Windows	~				
File name: Lasernet Output Management.Inconf	igx			✓ Lasernet cor	nfigurations (*.Incor ∨
				<u>O</u> pen	Cancel

Lasernet Developer prevents you from importing a configuration with the same name to the Lasernet Config Server. You will be prompted to rename the imported configuration if the name already exists.



Configuration name already exists	×
A configuration with the same name already exists. Please enter a different	ame for the imported configuration
Lasernet Output Management	
	OK Cancel

You <u>cannot use</u> the Export Configuration from the Lasernet Developer to export a full configuration from one computer and import it to another, replacing the configuration completely. Instead, the Exported Configuration can only be actioned from start page of the Developer, opening the exported configuration as a whole. If you remove a configuration before you open the exported configuration, your revision history will be lost.

Instead, <u>you must use</u> the Export and Import Objects functionality and select individual objects from the configurations as in previous versions of Lasernet. This is to ensure that the revision and history log will be updated successfully.

5.3.3 Open Configuration

For Las	rmpipe. sernet		– ×
Open Configu	ration		
Search filter:			
Configurations:			
No. 🔺 Name	Description	Latest commit	
1 🔮 Lasernet Output	Management		
(5) Open Revision	Rename 🕒 Remove		
Back			Den Open

You can open, rename or remove an existing revision of a configuration stored on the Lasernet Config Server.

A configuration cannot be opened more than once at the same time by the same Windows user on the same computer.

A configuration opens in the Lasernet Developer application.



Lasernet Output Management - Lasernet Developer 10 ? -	o x
- Commit 🥛 Revert 🜔 History 🖸 Add 🎄 Edit 🤤 Remove 🍸 Filter 🗙	
Instance A Flag Description Grab Directory Grab Files Runtime	Failover
Master	
Default 100 Default 100 CAProgramData\Formpipe Software\Lasernet 10\Service\%InstanceName%\	
1	Lasernet Output Management - Lasernet Developer 10 1 Ip Commit Revert History Add Edit Remove Filter X Instance Flag Description Grab Directory Grab Files Runtime Master Default 100 Ct\ProgramData\Formpipe Software\Lasernet 10\Service\%InstanceName%\ Part of the sum of

5.3.4 List of Configurations After you have created your first configuration it is stored in the Lasernet Config Server and figures in the Configurations tab.

Lasernet Config			administrator
💅 Deploy 🛛 🔂 Add 🔹 Edit 🧲	Remove		
Tools	Name	Description	Revision
Servers	Lasernet Output Management		1
AX Dictionary Servers			
Print Servers			
🧔 Configurations			
History			
2 Users and Groups			
Security Roles			
Apps			
			-



5.4 Deploy

To view or deploy existing revisions of a configuration, start the Lasernet Config Server, and click the Deploy button in the tool bar.

Lasernet Config						administrator
💅 Deploy 🛛 🕄 Add 🔹 Edit 🧲	Remove					
Tools	Instance		Server	Port	Configuration	Revision
	Default		DESKTOP-G70LUIV	3279	Lasemet Output Management	Patched
Servers			Deploy Configuration		× agement	15
A Dictionary Servers						
	Server	Deploy				
Print Servers	Prod					
	E Default					
Configurations						
0						
() History	Configuration:	Lasernet Output Managemen	t v			
Pool Heart and Ground	g					
and Groups	Revision	Date 2.0.2021 03.20.01	Message	Author	-	
Security Roles	8	2.6.2021 08.15.28	Support for supplier CSV in OCR	administrator		
	7	2.6.2021 07.40.40		administrator		
Apps	6	1.6.2021 17.25.18		administrator		
	5	1.6.2021 17.23.01		administrator	*	
				OK	Cancel	

In the **Deploy Configuration** dialog you view and select any revision of a configuration you would like to deploy to any instance of a server available in the dropdown list.

5.4.1 History: Configuration Revisions

In the Lasernet Config Server you view the history of any revision deployed to any server instance. Select the server instance name and click the **Edit** button. In the Edit Server Instance dialog select the **History** tab.



	Edit Server Instance	9		×
🥝 🎵 🖉	()			
General Insights Configurat	tion History			
Date	Configuration	Revision	Deployed By	*
🗯 7/6/2021, 10:46:35 AM	🙆 Lasernet Output Management	4	2 Administrator	
🗯 7/6/2021, 10:17:29 AM	🙆 Lasernet Output Management	3	🙎 Administrator	
				Ψ.
			014	C 1
			OK	Cancel

In the Lasernet Developer, you can also view and select any revision of a configuration by clicking the **History** button.

		Lasern	et Output Management -	Lasernet Developer 10			o x
<u>File Edit Servers View Revision Hel</u>	p						
🞻 Deploy or Patch 🕑 Validate	- Commit 🗍 Revert	🚯 History 🕒	Add 🏟 Edit 🕒	Remove Filter	×		
Servers d	Instance	Flag Description	Grab Directory	Grab Files Runtime			Failover
Master	Master						
Default	Default			100 📒 C:\ProgramE	Oata\Formpipe Software\Lasernet	0\Service\%InstanceName%\	
				History		×	
	Filter						
	Revision * Date		Author	Message			
	1 🚍 26/	05/2021 08.18	administrator	Created configuration			
	Created configuration						
Tools							
Search							
Servers							
	Name	Туре	Action				
e modules	Master	Server	Added				
Forms	Default	Server	Added				
Subforms	 Iemplates Default 	Regional Profile					
Phrases	Crudit	Regional Profile	- Added				
Resources							
Scripts	Changes	🔿 Restore 🗧	Export				
Commands						Close	
P Modifiers							
Tools Profiles	4						+
						💼 Licensed To: Formpipe Li	asernet A/S

When you make any changes to a configuration, the changes are stored locally. To push those changes to the Lasernet Config Server, you have to **commit** them.



If you are not satisfied with the changes, you can **revert** them before committing or **restore** them after a commit.



5.4.2 Commit

To push any new changes (additions, edits, deletions) to the configuration server since the last revision, click **Commit**.


		Commit Changes				×
T Filte	er					\
Message	e					
Name		Туре	Action	Description		
✓ 🔅	Full					
✓	Objects					
	🗸 📒 File Input	File Input	🕈 Added			
	🗸 📒 File Output	File Output	🕈 Added			
🔅 A	None Show Changes	Select Dependencies	🔩 View Dep	endencies		
				[ОК	Close

Click **OK** to confirm your action. The changes will then be sent to the configuration server and a progress window will appear.

Note: When committing changes to the **Resources** folder, including when removing or adding files to **Grabs**, **Overlays**, and **Images**, ensure that these items are selected in the commit tree. If you fail to do so, they will not be committed.

					_	Commit Changes	×
	FI	ter					ø
60	160	scrip	pr, activated a form, removed some grads and an image				
Na	ne			Туре	Action	Description	
	2	Fu					
ľ	1	e	Objects				
		~	Attachments	Script	Modified		
	_	~	I HR_Nepi_FreeTextInvoiceReplacement_v2 - Copy	/ Form	Modified		
×			Resources				
	~	V	Z 🦰 GAW				
			Vew Text Document - Copy (10).txt	File	Remov		
			V 📄 New Text Document - Copy (11).txt	File	Remov		
			V New Text Document - Copy (12).txt	File	= Remov		
			V 📄 New Text Document - Copy (13).txt	File	Remov		
			V 📄 New Text Document - Copy (14).txt	File	Remov		
			🗹 📄 New Text Document - Copy (6) - Copy.txt	File	Added		
			🗹 📄 New Text Document - Copy (7) - Copy.txt	File	Added		
			🗹 📄 New Text Document - Copy (8) - Copy.txt	File	Added		
			🗹 📄 New Text Document - Copy (9) - Copy.txt	File	Added		
	~		Grab				
		~	🗸 📒 FormOut				
			HU_Nepi_FlexSalesInvoiceReplacement				
			🗌 💽 InputData - Copy (4).xml	File	Remov		
			🗌 💽 InputData - Copy (5).xml	File	Remov		
	~		😑 Images				
			Logo_BEPS.PNG	File	Remov		
		_	·				
1	\$	AI	🗙 None 🚍 Show Changes 🗹 Select Deper	dencies	⊷ View Deper	ndencies	
						OK C	lose

Once complete, click **Close**.



5.4.2.1 Dependency Walker

Select Dependencies – Automatically selects all other objects, related to the selected object, that have not yet been committed.

		sandbox - Lasernet	Developer 10		? – 🗆 🗙
<u>File Edit S</u> ervers <u>V</u> iew <u>R</u> evision <u>H</u> elp					
🚀 Deploy 🛞 Patch 🕑 Validate 🖃	Commit 🦷 Revert 🜔 History	🖓 🚯 Add 🔹 Edit 🤤 Remove 🝸	Filter X		
Servers d ⁰					
Master	<u> </u>	K 📇 😏 💭 📜 Scale: 100%	Goto X V		
E Default					
Modules ♂ → Input ④ Engine → Output					
E Azure Service Bus					
Azure Storage					
DM Upload					
V Dropbox					
File Output					
FTP					
🛆 Google Drive		File Input		File Output	
HTTP		File Input		File Output	
Long-Term Archive		C:\Laserner\Input*.xmi		C:\Lasemet\Output\xmi	
Mail Output		KML Validator		_	
				Commit Changes	×
* <u>*</u>			Filter		•
Tools Ø		Mail Output	The signation dependencies optimed		
Q Search		mail Output mailserver			
Servers		–			
Modules		In this example			
Forms		the File Output is	Name	▲ Туре	Action Description
📄 Subforms		a dependent	V D Objects		
222 Phrases		module	🔽 📁 File Input	File Input	Modified
esources			File Output	File Output	Modified
Scripts		so is XML	Mail Output	Mail Output	Added
Commands		Validator module.		ANIL VAIIGALOI	Tr Auuco
Modifiers			🔆 All 🗙 None 🚍 Show Chang	es Select Dependencies	- View Dependencies
Tools Profiles				-	OK Close
					Ciose

Note: Lasernet will not show:

- More than one level of dependencies
- References used by script functions
- References from JobInfo Substitution
- DataType profiles used from Web Server input
- Database Connections added to SharePoint module



View Dependencies – Displays all dependencies to the selected object.

Dependencies	×
Name	^
V 000 Module	
🗸 🔚 File Input	
 i^a_a Modifiers 	
📕 XML Validator	
✓ ⁶ ₀₀ Modules	
📒 File Output	

Note: You can also select View Dependencies by right-clicking a module or form.

File Input File Input C:\Lasernet\Input*.xi	- File Innut		File Output File Output C:\Lasernet\Output\vml
MI Validator	• Add	•	a
	🔸 Edit	F2	
	Toggle Inactive		
Mail Outpu Mail Output	Lest	Alt+Enter	
mailserver	Export		
	Move to	•	
	Commit		
	 History 		
	View Dependencies		
	Paste file on clipboard		
	Remove		

5.4.3 Revert

Click Revert to revert changes for selected objects since the last commit.



	Revert Chan	ges		×
T Filter				
Name	▲ Type	Action	Description	
V 🔅 Full				
V V Objects				
V File Input	File Inpu	t 🕈 Added		
V File Output	File Out	out 🖶 Added		
🔆 All 🗙 None 🛱 Show Changes				
			C	K Close

5.4.3.1 History

To view all of the commit changes as well as user information for past revisions, click History.

		ł	listory	×
Filter				
Revision * Date		Author	Message	
2 🚞 2	6/05/2021 08.28	administrator	Adding File Input and Output modules	
1 📰 2	5/05/2021 08.18	administrator	Created configuration	
Adding File Input and	Output modules			
Name	Туре	Action		
👶 File Input	Module	Added		
🔅 File Output	Module	🖶 Added		
🔁 Show Changes	Restore	-> Export		
🔁 Show Changes	Restore	- Export		

5.4.4 Deploy to Server

Once the changes made within a revision are accepted and approved, the revision can then be deployed to one or more servers. To do this, navigate to the Lasernet Config Server and click the **Deploy** button for the revision you want to deploy to the server.



		Deploy Configuration		×
Server		Deploy		
Configuration	n: Lasernet Output M	lanagement 🗸		
Revision	Date	Message	Author	•
2	5/26/2021 6:28:00 AM	Adding File Input and Output modules	administrator	
1	5/26/2021 6:18:42 AM	Created configuration	administrator	
				11
				•

5.4.4.1 Deploy in Lasernet Developer

You can also activate the **Deploy** button in the Lasernet Developer application to deploy changes to a server.



Notes: Only committed objects can be deployed.

Lasernet Output Management - Lasernet Developer 10								×		
<u>File Edit Servers View Revision H</u> e	elp									
🚀 Deploy Patch 🕑 Validate	Commit TRevert	History	🔂 Add	🇱 Edit	C Remove	Filter		×		
Servers Ø	Diagram									
E Default	Name	▲ Flag	Туре	Inactive	Details			Default Destination	Job Destination	
	🛨 Input									
Modules Ø	📒 File Input		File Input		C:\Lasernet\In	put*.xml			File Output	
→ Input @ Engine → Output	Engine									
	Output									_
	File Output		File Output		C:\Lasernet\O	utput\				- 1
DM Upload	Deploy configuration X Select servers to deploy to:								- 1	
2 Dropbox									- 1	
S Exchange	Instance	▲ Flag	Descript	ion Fa	alover					- 1
File Output	🗸 🚦 Default									- 1
FTP										- 1
💪 Google Drive										- 1
• нттр										
🔅 🗜 🔆 😳										
Tools Ø	📀 Validate					Qk	Cancel			- 1
Q Search						_	_			
Servers										
Modules										
Forms										

If you try to deploy objects or resources from the configuration you have not committed, you will see a warning message in the **Deploy configuration** dialog. You can click the **Commit** button at this point to commit the selected object(s) or click **Ok** to deploy a configuration without the uncommitted objects.



Deploy configuration								
Select servers to deploy to:								
Instance		Flag	Description	Failover				
V 📕 Default								
Warning! Uncommitted objects or resources exist!								
Validate Commit				Qk	Cancel			

Click **OK** to confirm. The deployment will then start with a progress dialog.

Updating Se	ervers X
Deploying configuration	
100%	1
Deployment completed successfully	
Qlose	

Once completed, click **Close**.

Note: Before deploying, ensure there is an active connection between the Lasernet Developer, Lasernet Config Server and the Lasernet Service is running.

If the selected server Instance is not committed or stopped, or the Lasernet Config 10 service or connections are not running, the transfer process will fail.

Updating Servers	×
Deployment failed	
0%	
Could not transfer to Default (WinHttpSendRequest: 12029: A connection with the server could not be estable)	lished
Retry Glose	

5.4.4.2 History: View Changes

It is possible to view changes while committing them. To do this, click the **Show Changes** button.



		Lasernet Output Management - Lasernet Developer 10	? – 🗆
<u>File Edit Servers View Revision He</u>	elp		
💅 Deploy 📀 Patch 💽 Validate	Commit 🏾 👕 Revert 🜔 History	🖸 Add 🔹 Edit 😑 Remove 🍸 Filter	X
Servers 0	Diagram		
Master		le la la la la la	
Default	Name Flag	Type Inactive Details	Default Destination Job Destination
	- File lenut	File Input CVI assesset\ Input\ * vml	Eile Output
Modules Ø	- Fine input	File input C:\Laseriet\input\ xmi	Pile Output
🛨 Input 🔞 Engine 📑 Output	Output		
Azure Service Bus	File Output	File Output C:\Lasernet\Output\xml	
Azure Storage			
DM Upload		Commit Changes	×
V Dropbox	Filter		
Exchange	1 1001		
	Message		
Google Drive			
HTTP			
	Name	+ Tupe Action Description	
🔅 🧾 🔆 😳	V O Full	- Type Action Description	
Tools Ø	V O Objects		
Q Search	🔽 📒 File Outpu	t File Output 🗏 Modified	
Servers			
t_j Modules			
Forms	🔅 All 🗙 None	Show Changes	
Subforms			OK Close
11 Phrases			

Changes are shown in a separate dialog.

		Show C	Changes			×
Filter			Match	whole word	Match case	
•		File	Output			
Server ve	rsion		Local vers	sion		
Operation	Setting	Value	Operation	Setting	Value	
-	Directory	C:\Lasernet\Output\	+	Directory	C:\Lasernet\Output\xml	

Confirm the commit by clicking **OK.** The progress dialog will then appear.

Committing d	hanges X
Commit complete	
100%	
Close	

Once completed, click **Close**.



5.4.4.3 Deploy in Lasernet Config Server

In the Lasernet Config Server, select the Configuration that contains changes you want to deploy.

Lasernet Config						administrator
💉 Deploy 🛛 🛨 Add 🔹 Edit 🗲	Remove					
Tools	Instance		Server	Port	Configuration	Revision
Servers	Default		DESKTOP-G70LUJV	3279	Lasernet Output Management	2
AZ Dictionary Servers			Deploy Configuration		×	
Print Servers	Server	ſ	Deploy			
Onfigurations	E Defaul	t	2			
Distory						
292 Users and Groups	Configuratio	on: Lasernet Output Man	agement 🗸			
Security Roles	Revision	Date	Message	Author	A	
	3	5/26/2021 6:43:26 AM	Adding XML as a part of the folder structure	administrator		
Apps	2	5/26/2021 6:28:00 AM	Adding File Input and Output modules	administrator		
	1	5/26/2021 6:18:42 AM	Created configuration	administrator		
			-		w	
					OK Cancel	

Select the newest revision to deploy the latest committed objects to the server and click OK.

		Deploy Configuration		×
Server	De	ploy		
🚦 Default				
Configuration	n: Lasernet Output Manag	jement 🗸		
Revision	Date	Message	Author	•
3	5/26/2021 6:43:26 AM	Adding XML as a part of the folder structure	administrator	
2	5/26/2021 6:28:00 AM	Adding File Input and Output modules	administrator	
1	5/26/2021 6:18:42 AM	Created configuration	administrator	
				~
			ОК	Cancel

To deploy another revision select any of the revisions in the Deploy Configuration dialog and click OK.

The **Deploy** tool in the Lasernet Config Server work similarly to the one in the Lasernet Developer application. The only difference is that you can deploy old revisions from the Lasernet Config Server,



whereas you can only deploy the newest revision from Lasernet Developer. You can, however, open an old revision in the Lasernet Developer for viewing and exporting purposes.

Lasernet Config					administrator
🚀 Deploy 🛛 🔁 Add 🔹 Edit 🖨 Rei	emove				
Tools	stance	Server	Port	Configuration	Revision
Servers	Default	DESKTOP-G70LUJV	3279	Lasernet Output Management	3
	Prod	DESKTOP-G70LUJV	3280	Lasernet Output Management	3
▲☆ Dictionary Servers					
Print Servers					
Find Servers		Deploying Configuration		×	
Onfigurations	Devile ment or melated averagefully				
History	Deployment completed successfully				
292 Users and Groups					
Security Roles					
				Close	
Apps					

Once the deployment has completed successfully the dialog will report about this.

The example shows that **Revision 3** of the **Lasernet Output Management** configuration is now active for the server instance named **Default**.

5.4.4.4 History: Show Changes and Restore

In the Lasernet Developer application, click the **History** button to view a list of changes made to a configuration.



	Lasernet Output Management - Lasernet Developer 10	? – C ×
File Edit Servers View Revision		
Server	Revert Oristory Oristory Revert Add Add Call Control Remove	
Master	Diagram	
Default	Name A Flag Type Inactive Details Default Destination	Job Dectination
	Input	See of cash about
		File Output
Modules	nistory	
Anna Carlas Das	Filter	
Azure Service Bus	Revision T Date Author Message	
Mulpload	3 26/05/2021 08.43 administrator Adding XML as a part of the folder structure	
	2 📅 26/05/2021 08.28 administrator Adding File Input and Output modules	
Exchange	1 🗮 26/05/2021 08.18 administrator Created configuration	
File Output		
FTP		
各 Google Drive		
🗊 НТТР	Adding File Input and Output modules	
🔅 🗜 🔆 🛟		
Tools	0	
Q Search		
Servers		
	Name Type Action	
Modules	File Input Module + Added	
Forms	😳 File Output Module 🔶 Added	
Subforms		
22 Phrases		
Resources		
Scripts	🚍 Show Changes 🖒 Restore 🚽 Export	
Commands	a	lose
Modifiers		
Table Desfine		
100IS PTOTILES	4	
		Licensed To: Formpipe Lasernet A/S

You can select up to 10 objects at a time to compare across revisions.

The example below shows two objects with all the settings added at the same time. To view changes separately, select the object tabs.

Show Changes							
Filter Mate	h whole word	Match case					
File Input File Output							
Revision 1	Revision	2					
Operation Setting Value	Operation	Setting	Value				
	+	Color	0				
	+	Combining/Enabled	false				
	+	Combining/MaxCount	0				
	+	Combining/SetStopJobI	nfo				
	+	Combining/TimeOut	1				
	+	DefaultDestination					
	+	Delivery/Interval	3				
	+	Delivery/KeepOrder	false				
	+	Delivery/Retries	0				
	+	Directory	C:\Lasernet\Output\				
	+	ExistAction	0				
	+	FailJob	🗖 false 💌				

In the **History** dialog, click the **Restore** button to restore the selected object from an old revision and import it to the newest revision.



	_			Lasernet Ou	utput Management	Lasernet Developer 10				? –		×
<u>F</u> ile <u>E</u> dit <u>S</u> ervers <u>V</u> iew <u>R</u> evision <u>H</u> e	elp											
🚀 Deploy Patch 🕑 Validate	•	Commit 👕 Re	vert 🜔 History	🔂 Add	🇱 Edit 🧲	Remove Tilter	×					
Servers Ø		Diagram		-								
Master		Didgi dini										
Default	Nan	ne	▲ Flag	Туре	Inactive Det	ails	D	efault Destination	Job Destina	tion		
		Input										_
Modules Ø						History			× File O	utput		
📑 Input 🐗 Engine 📑 Output												-
Azure Service Bus		Filter							_			
Azure Storage		Revision * Dat	te		Author	Message						
🔂 DM Upload		3	26/05/2021 08.43		administrator	Adding XML as	a part of the folder structur	e	-1.			
😌 Dropbox		2 =	26/05/2021 08.28		administrator	Adding File Inpu	it and Output modules					
S Exchange		1 =	26/05/2021 08.18		administrator	Created configu	iration					
File Output												
FTP												
Google Drive		Adding File Input	and Output modules									
• HIIP												
🍪 🔳 🔆 😌												
Tools Ø	1											
Q Search												
Servers			-						_			
Modules		Name	Type	A	ction							
Forms	1	 File Output 	Module	+	Added							
Subforms												
111 Phrases												
Resources		a	5									
Scripts		📮 Show Chan	ges Restore	e 📑 Ex	port							
Commands								Close				
P Modifiers	Ľ											
Tools Profiles	4											Þ
									Licensed To	: Formpipe	Lasernet	A/S

From the **Import Object** dialog (also accessible via the toolbar: **File > Import Objects**), select the required action.



Action Description



Import and replace object	Replaces the existing object with the one being imported.
Do not import object	No object imported. All the objects stay the same.
Import, keep both and rename imported object	Keeps the existing object without renaming it, imports the new object and renames it.
Import, keep both and rename existing object	Keeps the existing object, renames it, and imports the new object without renaming it.

If the old revision of the imported object has the same hash as the new one, the object will not be registered as modified.

Lasernet Output Management - Lasernet Developer 10								-		×
<u>File Edit Servers View Revision H</u> elp										
🚀 Deploy 🛞 Patch 🛛 Validate	Commit 👅 Revert 🤇	>> History	🔂 Add	🗱 Edit	C Remove Filter	×				
Servers D	Diagram									
Default	Name	▲ Flag	Туре	Inactive	Details	Default Destination	Job Destination			
	🛃 Input									
Moduler	📒 File Input		File Input		C:\Lasernet\Input*.xml		File Output			
Input Proine Qutput	🔹 Engine									
Anna Canina Dua	Output									
Azure Service Bus	🔶 💷 File Output		File Output		C:\Lasernet\Output					
 Azure storage 										

If the imported object differs from the one in the latest revision, it is defined as modified and must be committed before the revision is updated.

Commit Changes							
T Filter							
File path for File Output is reverted back to revision 2							
Name	 Type 	Action	Description				
🗸 🔅 Full							
V Ø Objects							
🗸 📒 File Output	File Outp	ut 🔲 Modifi	ed				
🔅 All 🗙 None 🔁 Show Changes							
				OK	Close		

To validate that the restored object contains a modified property, click **Show Changes**.



	 Date 	Author	Message		
History iher in Date Author Message 4 26/05/2021 11.54 administrator File path for File Output is reverted back to revision 3 26/05/2021 08.43 administrator Adding XML as a part of the folder structure 2 26/05/2021 08.28 administrator Adding File Input and Output modules 1 26/05/2021 08.18 administrator Created configuration wath for File Output is reverted back to revision 2 Show Changes Image: File Output Match whole word Match case File File Output Match case Image: File Output Image: File Output Operation Setting Value - Directory C:\Lasernet\Output\+ Directory C:\Lasernet\ Show Changes Image: Restore Export Export	reverted back to revision 2				
	3 🚞 26/05/2021 08.43	administrator	Adding XML as a part of t	he folder structure	
	2 🚞 26/05/2021 08.28	administrator	Adding File Input and Out	tput modules	
	1 🚍 26/05/2021 08.18	administrator	Created configuration		
	Filter	Shou	w Changes	Match case	×
	Titer	Shou	w Changes Match whole word	Match case	×
	Filter Revision 3	Shou	W Changes Match whole word File Output Revision 4	Match case	×
	Filter Revision 3 Operation Setting	Shor	Match whole word [Match whole word [File Output Revision 4 Operation Setting	Match case	×
	Filter Revision 3 Operation Setting Directory	Shor Value C:\Lasernet\Output\	Match whole word [Match whole word [File Output Revision 4 Operation Setting + Directory	Match case Value C:\Lasernet\Output	×
	Filter Revision 3 Operation Setting Directory	Show Value C:\Lasernet\Output\	Match whole word (Match whole word (Revision 4 Operation Setting + Directory	Match case Value C:\Lasernet\Output	×

After committing, the configuration is deployed as a new revision.

		Lasernet Output Managen	ent - Lasernet Developer 10		? – 🗆 🗙
<u>File Edit Servers View R</u> evision <u>H</u> el	р				
💅 Deploy 🛞 Patch 🛛 🔗 Validate	Commit 🍵 Revert 🜔 History	🔂 Add 🛛 🎄 Edit	C Remove Filter	×	
Servers 6	Ciagram				
Default	Name * Flag	Type Inactive	Details	Default Destination J	ob Destination
	🛨 Input				
Modules Ø	📒 File Input	File Input	C:\Lasernet\Input*.xml	I	File Output
→ Input 👍 Engine 📑 Output	Engine				
Azure Service Bus	Output				
Azure Storage	File Output	File Output	C:\Lasernet\Output		
DM Upload		Deploy configuration	×		
Cropbox	Select servers to deploy to:				
Kchange	Instance A F	lag Description F	allover		
File Output	V Default				
FTP					
🛆 Google Drive					
🔍 НТТР 👻					
😳 🗾 🔆 🛟					
Tools Ø	📀 <u>V</u> alidate		Qk Cancel		
Q Search					
Servers					

The example below shows that **Revision 4**, which includes the restored object, is active.



	Lasernet Config									administrator
4. ju	Deploy 🛛 🕂 Add 🔹 Edit 😑	Remove								
То	ols	Instance	•		Server		Port	Configuration		Revision
=	C	🚦 Defa	ult		DESKTOP-G70LUJV	1	3279	Lasernet Output Managem	ient	3
•	Servers	Prod	l		DESKTOP-G70LUJV	r	3280	Lasernet Output Managem	ient	3
A	² Dictionary Servers				Deplo	by Configuration		×		
	Print Servers		Server	1	Deploy					
6	Configurations		E Default							
¢	History									
2	2 Users and Groups		Configuration	: Lasernet Output Man	agement 🗸					
	Security Roles		Revision	Date	Message		Author	*		
			4	5/26/2021 9:54:03 AM	File path for File Ou	tput is reverted back to revision 2	administrator			
	Apps		3	5/26/2021 6:43:26 AM	Adding XML as a pa	art of the folder structure	administrator			
			2	5/26/2021 6:28:00 AM	Adding File Input a	nd Output modules	administrator			
			1	5/26/2021 6:18:42 AM	Created configuration	on	administrator			
								OK Cancel		

5.4.5 Open Old Revision of Configuration

To open an old revision of a configuration, follow the steps listed below:

1. In Lasernet Developer, click **Start Page...** on the **File** menu.

<u>File Edit Servers View Revision H</u> elp	_
📁 <u>S</u> tart Page	_
🚱 Export Configuration	Commit Revert
🗲 Import Objects	Diagram
😑 Export Objects	
₫ Deploy Ctrl+D	ime Input
	File Input
📀 Validate	Engine
S Exit	Output
Azure Service Bus	📒 File Output

2. In the dialog displayed, click **Open configuration...**



Form Lase	npipe. rnet		– X
Start			
Ø New configuration	Create a new configuration		
🚝 Import configuration	Import external configuration		
Dpen configuration	Open an existing configuration		
Recent 1. Lasernet Output Management			
Sign out			Most Regent

3. On the **Open Configuration** screen, you can rename or remove a configuration from the Lasernet Config Server, or you can click **Open Revision** to open any revision of the selected configuration.

	ormpipe. asernet			×
Onon Confic	uration			
Search filter:	Juration			
Filter text				7
Configurations:				1
No. 🔺 Name	Description	Latest commit		
1 🥝 Lasernet Out	put Management	26/05/2021 11.54		
() Open Revision	🕺 Rename 🗧 Remove			
-				
P Pack			0000	1
			ypen	

If you have restricted user rights in the Lasernet Developer application you can still open an old revision of a configuration, however most objects will be in read-only mode.



Oper	For Las	rmpipe sernet et Output Ma	anagement	_	×
Revisions: Revision	Author	Date	Message		
4	administrator	26/05/2021 09.54	File path for File Output is reverted back to revision 2		
3	administrator	26/05/2021 06.43	Adding XML as a part of the folder structure		
2	administrator	26/05/2021 06.28	Adding File Input and Output modules		
1	administrator	26/05/2021 06.18	Created configuration		
	lack		[<u>o</u> k	

You can validate and view the history. Objects can also be exported and imported to the latest revision of another configuration.

	Lasernet Output Management (Revision 2) - Lasernet Developer 10						×
<u>File Edit Servers View R</u> evision <u>H</u>	elp						
💅 Deploy 💮 Patch 🕝 Validate	Commit 🛛 🗑 Revert 🜔 History	Add 🌼 Edit	C Remove Tilter	×			
Servers 6	Diagram Inactive		Read only				
Default	Name	Type Inactive	Detai	Default Destination	Job Destination		
	🛨 Input						
Export objects	📒 File Input	File Input	C:\Lasernet\Input*.xml		File Output		_
Treat the English only	Engine						
Input o Eng	🚽 🔁 Output						- 1
Azure Hybrid Connection Azure Service Bus Azure Storage	📁 File Output	File Output	C:\Lasernet\Output\				

5.4.6 Patch

Patch server is a way to verify your configuration on your server with added or modified objects in the configuration without being forced to a commit and create a new revision.

All objects in the configuration are then transferred to the selected server, and non-committed objects are merged to the latest revision.



	Lasernet Output Management - Lasernet Developer 10								×
<u>File Edit Servers View Revision</u>	<u>H</u> elp								
🚀 Deploy 📀 Patch 📀 Validate	Commit 🛛 Revert	History	🔂 Add	🗱 Edit	C Remove	×			
Servers	Diagram								
Master									
Default	Name	▲ Flag	Type	Inactive	Details	Default Destination Job	Destination		
	🛨 Input								
Mandadan	🗧 📒 File Input		File Input		C:\Lasernet\Input*.xml	D	File Output		
Modules	Engine								
Input opengine Output			Form						
🛬 Binary Merger	→ Output								
Sinary Splitter	Eile Output		File Output		C\Lasernet\Output				
Compression	- The Output		The Output		C. (Lasemer (Output				

You can have multiple users patching the same server. Non-committed objects are then merged to a single patch.

Deploy patched configuration					×
Select servers to patch:					
Instance	▲ Flag	Description	Failover		
V Default					
🥑 <u>V</u> alidate				Qk	ancel

On the web interface of the Lasernet Config Server, go to the **Deployment** section and click the required instance to view the patched object(s) list.

Lasernet Config						
💅 Deploy 🛛 💿 Add 🔅 Edit 🕒 Remove						
Tools	Instance	Server	Port	Configuration	Revision	
Servers	Default	DESKTOP-G70LUJV	3279	Lasemet Output Management	Patched	
AX Dictionary Servers						

The patch ID is an internal identifier that varies from user to user. The same user has the same ID.

The server runs in patch mode until a user creates a new commit/revision. Active patches for any user are then cleared. They must be either committed (including their objects), or a new patch with uncommitted objects will be created.

Important: Patch mode must be used carefully in a multi-user environment. The functionality is <u>only</u> recommended for testing purposes and advanced users.

5.4.7 Add Multiple Server Instances in Lasernet Config Server

Add another server instance to the Lasernet Config Server. In this example, an instance to run the production environment is added.



III Lasernet Config						
💅 Deploy 🛛 😋 Add 🎄 Edit 😄 Remove						
Tools Instance Server Port Configuration						
	E Default	DESKTOP-G70LUJV	3279	Lasernet Output Management	Patched	
Servers	Prod	DESKTOP-G70LUJV	3280	Lasernet Output Management		
AX Dictionary Servers						

5.4.8 Add Multiple Server Instances in Lasernet Developer

Log in to Lasernet Developer and open the configuration again to obtain a list of servers recently added to the Lasernet Config Server.

In the Lasernet Developer, add a new server instance to your configuration and commit your changes.

		Lasernet Output Management - Lasernet Developer 10
<u>File Edit Servers View R</u> evision <u>H</u> e	łp	
💉 Deploy 🚸 Patch 🕑 Validate	Commit 👅 Revert 🜔	History 💽 Add 🎄 Edit 🖨 Remove 🍸 Filter 🗙
Servers d	Ins	Prod Properties X
Master		
Ecfault	General Grab Database L	ogger Printers Fallover Client JobInfos
	Instance:	Prod 💌
	Description:	Optional
	Default flag:	Default (Inherited from Master)
	Created date:	26/05/2021 10.43.02
	Modified date:	26/05/2021 10.43.02
	Created by:	2 administrator
	Modified by:	2 administrator
	Groups:	● <u>A</u> dd
		Remove
Tools 🗗	Server runtime data directory:	ogramData\Formpipe Software\Lasernet 10\Service\%InstanceName%\ ···· Dgfault
Servers		
e Modules		



		Lasernet Output Management - Lasernet Developer 10 ? -	o x
<u>File Edit Servers View Revision H</u> e	lp		
💅 Deploy 🚸 Patch 🕑 Validate	- Commit	The Revert 🕑 History 💽 Add 🌼 Edit 💿 Remove The Kernove	
Servers D	Instance	▲ Flag Description Grab Directory Grab Files Runtime	Failover
Master	Master		
Default	🚪 Defa	ult 100 🛑 C:\ProgramData\Formpipe Software\Lasernet 10\Service\%InstanceName%\	
Prod	📲 Proc	100 🖿 C:\ProgramData\Formpipe Software\Lasernet 10\Service\%InstanceName%\	
		Commit Changes ×	
	- 1	T Filter	
		Annual	
	- 1	Message	
		Name A Type Action Description	
		The result Description	
Tools		V V O Objects	
Q Search		V Prod Server 🗣 Added	
Servers			
O Modules			
Forms		Al X None 🚍 Show Changes	
Subforms		OK Close	
1 Phrases			

You are now able to deploy your configuration to your new server instance.



5.5 Users and Groups

Select the User and Groups tab to view and edit local Lasernet users.

Lasernet Config				administrator
💅 Deploy 🛛 🕒 Add 🎄 Edit 🗲	Remove			
Tools	Name	Display Name	Description	Disabled
Servers	2 Users 2 admin	administrator	Built-in account for administrator	
Print Servers	Croups		Built-in group for administrators	
Configurations				
Distory				
Security Roles				
Apps				

Lasernet has as a default admin user and a group of administrators that cannot be removed. The security role cannot be changed for this user and this group.

New users can be added to the administrator group and will obtain the same privileges.

Important: Users and groups added to a configuration in an older version of Lasernet <u>are not</u> migrated to the Lasernet Config Server 10 and must be added manually.

5.5.1 Add User

To add a user, select the **Users** section and click **Add**. Afterwards, fill in the fields with the required data and click the **OK** button.

Selecting the **Disabled** check box allows you to disable the user record (the admin record cannot be disabled).

You can force the user to change the password at next login, supported by the Lasernet Config Server and Lasernet Developer only, by selecting the **Change password** check box.



Lasernet Config						administrator
💅 Deploy 🕒 Add 🌼 Edit 🖨	Remove	_	Add User		×	
Tools	Name					Disabled
Servers	2 Users	General				
Dist Course	4 Groups	Name:	jd			
Print Servers	🏥 Admini	Display Name:	John Doe			
Configurations		Description:	Developer			
() History		Password:	••			
Lisers and Groups		Change Password				
Security Roles						
Аррз						
				OK	Cancel	

5.5.2 Edit User

To edit a user, click a name of the added user(s). You can now edit the name of the user, disable the account, force the user to change password at the next login or reset the password.

Lasernet Config					administrator
💉 Deploy 🛛 🔂 Add 🛛 🏟 Edit 🗧	Remove	_	User Properties	×	
Tools	Name				Disabled
Servers	2 Users	General			
	2 jd	Name:	jd		
Dictionary Servers	st Groups	Display Name:	John Doe		
Print Servers		Description:	Account Manager		
Onfigurations		Disabled Change Password			
History				Reset password	
991 Users and Groups					
Security Roles					
Apps					
				OK Cancel	

Click Reset password button to create a new temporary password for the user, who as default will be asked to change the password next time the user signs in. Click the copy to clipboard button to get the password in clear text.



	User Properties	×
General		
Name:		
Display Nat	Password reset	×
Description New password		Fig.
Disable		
🗹 Change		OK
		Reset password
		OK Cancel

5.5.3 Add Group

To add a group, select the **Groups** section and click **Add**. Afterwards, fill in the fields with the required data and click the **OK** button.

Lasernet Config		administrator
💉 Deploy 💽 Add 🕸 Edit 🕒 Remove	Add Group X	
Tools Name	•••	Disabled
Servers Servers	General	
Print Servers 2 jd	Name: Form Designers	Yes
alt Groups	Description: Group for form designers	
Configurations 🍄 Admini		
History		
20 Users and Groups		
Security Roles		
Apps		
	OK Cancel	

5.5.4 Edit Groups

To edit a group, click a name of the added group. You can now add group members.



Lasernet Config			admini	istrator
💅 Deploy 🛛 🕒 Add 🔹 Edit 🧲	Remove	Group Properties	×	
Tools Servers Print Servers	Name Users admin ig jd State Groups	Seneral Members Add Group Member X	Ves	oled
Configurations History Users and Groups Security Roles Apps	22: Admini 22: Form D	Select user to add jd ~		
		Add Remove OK Cancel		

You can also remove group members, if required.

Lasernet Config			administrator
💉 Deploy 🛛 🕒 Add 🔹 Edit 🧲	Remove	Group Properties X	
Tools	Name		Disabled
Servers	2 admin	Name	Vec
Print Servers	sta Groups	Jd	
Configurations	Service Form D		
History			
Security Poles			
Apps			
		Add Remove	
		OK Cancel	



5.6 Security Roles

Select the Security Roles tab to manage access control to Lasernet products and services.

Lasernet Config			Administrator
💉 Deploy 🕒 Add 🔹 Edit 🧲	Remove		
Tools	Name	Description	
Sanvar	📕 Developer		
Jeivers	🔮 All Rights	Administrator rights	
Dictionary Servers	Se Monitor		
-	😫 All Rights	Administrator rights	
Print Servers	Client		
	🔮 All Rights	Administrator rights	
	Printer Service		
() History	V All Rights	Administrator rights	
o O Likers and Groups			
Sers und Groups			
Security Roles			
Apps			

5.6.1 Developer

The **Developer** section of the **Security Roles** feature controls user rights in Lasernet Developer and on the Lasernet Config Server website. To add a new developer role, click **Security Roles**, then in the main part of the page click the **Developer** section, then click **Add**.

Lasernet Config		Administrator
💉 Deploy 🚺 🗘 Edit 🗧	Rem Developer Role Properties X	
Tools	Nar 😂 😨 🚀 🤐	
Servers	General Security Deployment Members	
AX Dictionary Servers	Name: Dev Users	
Print Servers	Description: Access rights for devisers of the Lasernet Developer	
Configurations	1	
Distory		
2		
Security Roles		
Apps		
	Of Card	
	OK Cancel	

On the page displayed, enter a name and then click **OK**.

Once you are done, a new developer role appears in the list.



Lasernet Config Administrator 💉 Deploy 🛛 🔁 Add 🎄 Edit 🧲 Remove Name Description Tools 📕 Developer Servers 😌 All Rights Administrator rights 😌 Dev Users Access rights for dev users of the Lasernet Developer AX Dictionary Servers Monitor Print Servers 🔋 All Rights Administrator rights Client Configurations 😌 All Rights Administrator rights 🖷 Printer Service () History 😌 All Rights Administrator rights 292 Users and Groups Security Roles Apps

To remove a role, click that role and then click **Remove**.

To edit the role, click that role and then Edit.

Lasernet Config				Administrator
💅 Deploy 🛛 🕒 Add 🔯 Edit 😑 R	Ren	Developer Role Properties	×	
Tools	Var 🥝 😨 🖋 🍳	<u>.</u>		
Servers	General Security Deployment Mer	hbers		
AX Dictionary Servers	Name: Dev Use Description: Access	rs ights for dev users of the Lasernet Developer		
Print Servers				
Configurations				
History	•			
292 Users and Groups				
Security Roles				
Apps				
			OK Cancel	



In the Developer Role Properties window, use the Security and Deployment tabs to configure the selected role's rights to access various administrative tools in the Lasernet Config Server and configuration tools in the Lasernet Developer.



5.6.1.1 Security -> Administrative rights

To manage access rights for the Lasernet Config Server:

- Activate **Configuration** to allow a user to view configuration settings, history and revisions.
- Acitvate **Servers** to allow a user to manage server settings.
- Activate Users and groups to allow a user to add, edit and delete users and groups.
- Activate **Security roles** to allow members of a group to manage the security roles for Administrative rights, Developer views, Deployments to specific server instances.
- Deactivate all administrative rights to prevent a user from logging in to the Lasernet Config Server.

5.6.1.2 Security -> Developer views

To manage access rights for the Lasernet Developer:

- Activate Server to allow a user to add, edit and delete server settings.
- Activate **Modules** to allow a user to add, edit and delete module settings.
- Activate Forms to allow a user to access the Lasernet Form Editor, SubForms, Phrases, Printer Profiles, Regional Profiles and Barcode Profiles.
- Activate Scripts to allow a user to add, edit and delete JavaScripts.
- Activate **Command** to allow a user to add, edit and delete Connections and Command.
- Activate **Modifiers** to allow a user to add, edit and delete Modifiers.

5.6.1.3 Deployment Rights

On the Deployment tab, you can grant configuration deployment rights for each server instance.

	Developer Role Properties X	
🕶 😫 💋 🤹		
General Security Deployment Members		
Samuer Instance	Access Disks	
Server Instance	Access Rights	
Prod	Allow	
Default	Allow	



5.6.1.4 Members

On the Members tab, you can specify which groups are **Members** of the selected security role.



Local Lasernet groups and AD groups can be added as members of a security role.

5.6.1.5 Allow a User to Download Grab Files When Using the Lasernet Developer

Permission to download grab files when using Lasernet Developer is not granted by any of the Developer role permissions described above.

To allow a user to download grab files when using the Lasernet Developer, you must ensure that the user's group is a member of the **Monitor -> All rights** role.

Lasernet Config	Lasernet Config Administrator								
💉 Deploy 🛛 🔂 Add 🔯 Edit 🧲	💅 Deploy 🛛 🗘 Add 🔯 Edit 😑 Remove								
Tools	Name	Description							
E Comment	📕 Developer								
Servers	Ø All Rights	Administrator rights							
A Dictionary Servers	😌 Dev Users	Access rights for dev users of the Lasernet Developer							
	Monitor								
Print Servers	😌 All Rights	Administrator rights							
0	Client								
Configurations	😫 All Rights	Administrator rights							
History	Printer Service								
	🔮 All Rights	Administrator rights							
2									
Security Roles									
Apps									

When you configure the **Monitor -> All rights** role, include the group that contains the user that you want to grant the access to.

Lasernet Config		Administrator
🚀 Deploy 🛛 🚺 Add 🔯 Edit 😑 Re	Monitor Role Properties X	
Tools		
Servers	General Servers Members	
Dictionary Servers	Name 1014 Administrators	
Print Servers	121 Dev Users	
Ocnfigurations		
History		
2 Users and Groups		
Security Roles		
Apps		
	🔁 Add 🛛 🧲 Remove	
	OK Cancel	

Users that have not been granted this access will be shown an "Access not allowed" error message when activating import grabs functionality from the Lasernet Developer.



5.6.1.6 Example of Security Roles for a User Logged in to the Lasernet Config Server

This section describes an example security configuration for a role, then shows the effect of that security configuration on the Lasernet Config Server user interface shown to a user who is a member of that role.

Security: The role's administrative rights are restricted to administrating Configurations and Servers.

	Developer Role Properties X
🚥 📴 🚀	<u>18</u> 1
General Security Deployment	Members
Administrative rights	
Configurations	✓ Servers
Users and groups	Security roles
Developer views	
Servers	Modules
Forms	✓ Scripts
Commands	Modifiers

As a result, if a user that has that role logs in to the Lasernet Config Server, they do not have access (in the **Tools** area) to manage **Users and Groups** and **Security Roles**.

Lasernet Config									
💅 Deploy 🔹 Add 🎄 Edit 🖨 Remove									
Tools	Instance	Server	Port	Configuration	Revision				
	E Default	DESKTOP-G70LUJV	3279	Lasernet Output Management	5				
Servers	Prod	DESKTOP-G70LUJV	3280	Lasernet Output Management	5				
Print Servers									
Onfigurations									
() History									

Deployment rights: The user's role's deployment rights are restricted to deploying configurations to the Default server instance only.





As a result, the list of accessible servers for deployment is now restricted to the Default server only.

	Deploy Configuration								
Server: Configuration	Default V Default Lasemer vatput Mana	gement 🗸							
Revision	Date	Message	Author						
5	5/26/2021 10:47:40 AM		administrator						

5.6.1.7 Example of Security Roles for a User Logged in to the Lasernet Developer

This section describes an example security configuration for a role, then shows the effect of that security configuration on the Lasernet Developer user interface shown to a user who is a member of that role.

Security: The views that are available to the role in Lasernet Developer do not include the Commands, Modules, or Modifier views, because those check boxes are not selected in the role's security configuration.

	Developer Role Properties	×
🚥 🔼 🚀	-22	
General Security Deployment	Members	
Administrative rights		
Configurations	✓ Servers	
Users and groups	Security roles	
Developer views		
✓ Servers	Modules	
Forms	✓ Scripts	
Commands	Modifiers	

To see the effect of this security configuration, first you must log in to the Lasernet Developer application as a user that is a member of the role that has the restricted rights described above.

For Las	r mpipe. sernet		-	×
	Sign in			
	jd	 		
		Next Lasemet 10.2.1 (Build: 403)		
Radk				



When you log in to the Lasernet Developer for the first time, the list of recently used configurations (in the lower part of the window) is empty. This list is stored in the Lasernet Config Server for each user.

Forn Lase	n pipe. rnet	- ×
Ø New configuration	Create a new configuration	
F Import configuration	Import external configuration	
Dpen configuration	Open an existing configuration	
Sign out		

Because there is currently no list of recently used configurations, click **Open configuration** to open an already existing configuration (that is stored in Lasernet Config Server). Find the configuration that you want to use, then click **Open**.

For Las	mpipe. sernet	-	×
Open Configur	ation		
Search filter:			
T Filter text			
Configurations:			
No. 🔷 Name	Description	Latest commit	
	nungenen		
🕑 Open Revision 📑	Rename 😑 Remove		
Back		Doeu	



After the Lasernet Developer loads, the Tools and Profiles tabs (see red-outlined area in the image below) enable the current user to add and edit the following object types:

- Form
- Subforms
- Phrases
- Resources
- Printer Profiles
- Regional Profiles
- Barcode Profiles

As a result of the configuration of the user's security role, the **Modules**, **Commands**, and **Modifiers** buttons that can appear in the Tools tab are hidden. Consequently, the user has no access to the functionality in Lasernet Developer that enables users to add, edit, and remove those types of object.

	Lasernet Output Management - Lasernet Developer 10										×	
<u>File Edit Servers View Revision Hel</u>	lp											
🚀 Deploy 🛞 Patch 🛛 🕑 Validate	Commit	Revert	() History	🔂 Add	🌣 Edit 🖸	Remove	Filter	×				
Servers 0	Instance	▲ Flag	Descrip	ption	Grab Directory	Grab Files	Runtime	Failover	Groups	Locked by		
Master	Master											
Default	Defau	ilt					100 C:\Prog	iram				
	1											
Tools &												
Servers												
Forms												
Subforms												
Phrases												
Resources												
🧾 Scripts												
Tools Profiles												
									-	Licensed To: Formpipe	Lasernet A/	/S



Users with restricted rights for viewing and writing specific object types can only import and export those same object types.

Export Object(s)							
Filter							•
Name	▼ Flag	Туре	Description	Inactive	Modified date	Modified by	
🗸 🗌 🔅 Full							
Subforms							
A Styles							
📃 🛕 Shape Style							
A Font Style							
Scripts							
🗸 🗌 🌏 Regional Profiles							
Default			Lasernet stan		26/05/2021	administrator	
Phrases							
📄 🗎 Overlays							
📕 Images							
Forms							
BuiltinBarcodes							
						OK	Cancel

However, users that have restricted rights to add, edit, or delete particular types of object can access and add all object types to the configuration from the following dialogs in the editors:

- Modifier events
- Overlays
- Grab file dialog
- Connections
- Destinations
- Scripts

The example screenshot below shows the **Edit Form Modifier** event window in the Lasernet Form Editor. This window can be accessed by all users. Although the logged-in user has restricted rights to the parts of Lasernet Developer that enable users to add, edit, or delete particular types of object, the user can access all object types in this window. But, they cannot edit them.





5.6.2 Monitor

The Monitor security roles relate to the Lasernet Monitor application and define the server instances to which the user has access. Select the **Monitor** section and click **Add** to add a new role.

Click the Servers tab to view and amend the access rights for each instance. Select the **Allow** checkbox to grant access rights to the corresponding instance.

Lasernet Config			Administrator
💉 Deploy 🔂 Add 🔹 Edit	Ren Monitor Role	Properties X	
Tools	Nar 🧼 📮 🥸		
Servers	General Servers Members		
Dictionary Servers	Server Instance	Access Rights	
Print Servers			
Configurations			
() History	-		
202 Users and Groups			
Security Roles			
Apps			
		OK Cancel	
		Cancer	

Use the Members tab to add groups to this role.

Important: The ability for a Lasernet Developer user to download grab files is managed by the **Monitor -> All rights** role. For more information, see Allow a User to Download Grab Files When Using the Lasernet Developer on page 63.

5.6.3 Client

Use the **Client Role Properties** window to add users, groups, or both, to a role that allows users to log in to the Lasernet Client. You can also set access rights to read, write and delete documents / jobs.

Lasernet Config			Administrator			
💅 Deploy 🚯 Add 🎄 Edit 💿 Remove						
Tools	Name	Description				
	📑 Developer					
Servers	All Rights	Administrator rights				
A Dictionary Servers	🔮 Dev Users	Access rights for dev users of the Lasernet Developer				
	Sea Monitor					
Print Servers	😌 All Rights	Administrator rights				
0	Client					
Configurations	🔮 All Rights	Administrator rights				
History	Printer Service					
U History	🔮 All Rights	Administrator rights				
292 Users and Groups						
A						
Security Roles						
Apps						



Administrators are members of the All Rights role, so they have full access permissions.

On the Security tab of the **Client Role Properties** window, you can specify whether Administrator rights are granted to role members.



On the Members tab, you can specify which access rights (**Write** and **Delete**) are granted to the local Lasernet users/groups or Active Directory users/groups that are listed on the Members tab.

	Client Role Properties	<
ඟ 😫 🤨		
General Security Members		
Name	Access Rights	
Administrators	🗹 Write 🗹 Delete	
🕂 Add 🧲 Remove		
	OK Cancel	



5.6.3.1 Lasernet Client

If you log in to Lasernet Client as admin, you can access all jobs. Whereas if you log in to Lasernet Client as a restricted user with a mapped security role, you will see only specific jobs.

Lasernet Client	, P Sear	ch pau	sed jobs							¢3	adı	min
Jobs 🖒	🖉 Edi	t Metac	lata 🔋 Attachn	nents 🚀 Release 🖇	🖉 Release to 🗎	Remove 🛓 Downloa	ad			Previ	ew 🗲	
(II) Paused			Invoices		Orders	<u>^</u>	Preview				~	<u>^</u>
Scheduled			Size of file	Path for Input f	Name of file	Storage						È.
🖒 Succeeded			36943	C:\Lasernet\Inp	Sales Invoice	C:\Lasernet\Ou			4		9 I	
🖓 Failed			369431	C:\Lasernet\Inp	Sales Invoice	C:\Lasernet\Ou	Formpip	Ð.				^
Queues			36943	C:\Lasernet\Inp	Sales Invoice	C:\Lasernet\Ou	Lasernet		Invoic	e	0.754	
Pass-Through (2071)			36943	C:\Lasernet\Inp	Sales Invoice	C:\Lasernet\Ou	Sparrow Wholesales Jone Lugo 123 Purple Road		Number Date Sales order		100147 19-01-2021 SO-100195	-
PDF Documents (2071)			36943	C:\Lasernet\Inp	Sales Invoice	C:\Lasernet\Ou	United States of America		Your ref. Our ref. Payment		7210 Net 60 days	
OCR Forms (897)			36943	C:\Lasernet\Inp	Sales Invoice	C:\Lasernet\Ou			Page	SUIR	1/3	
Invoice (184)			36943	C:\Lasernet\Inp	Sales Invoice	C:\Lasernet\Ou	Item number Description	Quantity	Unit Unit	price 29.00	Amount 129.00	
OCR Forms (713)			369435555	C:\Lasernet\Inp	Sales Invoice	C:\Lasernet\Ou	Quantity: 1 War LS-2 Cables for Loux LB-75 Loudspeaker, 0 Oursether 1 War	ehouse: 5 Ispeakers 10 Iheny, 75W 5	Box Piece	21.00	210.00 79.00	
			36943	C:\Lasernet\Inp	Sales Invoice	C:\Lasernet\Ou	LS-81 Loudspeaker, V Quantity: 1 War SPK-100 Spike for LS-10	Valnut, 80W 1 tohouse: 22 0 160	Piece Piece	79.00 21.00	79.00	
			36943	C:\Lasernet\Inp	Sales Invoice	C:\Lasernet\Ou	Quertity: 160 V 1896-S ATHENS Deak Quantity: 10 W 1900-S PARIS Quest C	farehouse: 250 10 Inshouse: 25 Dair, black 1	Piece 6	49.40	6,169.30	
			369437777	C:\Lasernet\Inp	Sales Invoice	C:\Lasernet\Ou	Quantity: 1 War 1906-S ATHENS Mobili Quantity: 1 War	ahouse: 2 e Podestal 1 ahouse: 4	Piece 2	81.40	267.33	
	4				_	▼ →	1908-3 LONDON Swite Quantity: 1 War 1920-5 ANTWERP Co. Durantity: 1 War	If Char, blue 1 ehouse: 6 ference Table 1 mhrune: 1	Piece 4	23.30	399.38	+ ₊

5.6.3.2 Security Roles Mapping in Lasernet Developer

	File Output Properties		×
General Setup Scheduling Combining Pause	Delivery Destinations Pre Jobinfos Post Jobinfos Connection	is Enter Modifiers Exit Modifiers Data Writter	Dob Events Job Trading
Name A Inactive Oriteria	Security Role Mapping Prop General Criteria Active: V Security Role,Profile: All Rights	ver ties X	
Add Add Crab Edit Remove	Combine Pre Jobinfos Enter Modifiers Processing D	Qk Cancel	Judput Grab Job Events Destinations Qk Cancel

Note: Security Profiles defined in Lasernet 9 or older are not migrated to Lasernet 10 and must be added to the Lasernet Config Server 10 by an Admin user.

The name of a security role added via the modules Security tab in Lasernet Developer will be migrated into Lasernet, retaining the name.



If the security roles added to the Lasernet Config Server 10 use the same names, and the user and groups assigned to the role are the same, they are compatible with older versions after upgrading to Lasernet 10.

New security roles added to the Lasernet Config Server are loaded in the Lasernet Developer every time the **Security Role Mapping Properties** dialog opens; therefore, the configuration does not require reloading.

5.6.4 Printer Service

The Printer Service security roles relate to the Lasernet Printer Service application and specify which Printer Services the user can work with. Select the Printer Service section and click **Add** to add a new developer role.

Click the **Deployment** tab to view and amend the access rights for each Printer Service instance. Select the **Allow** checkbox to grant access rights to the corresponding Printer Service instance.




5.7 Migration to Microsoft SQL Server

Open Lasernet License Manager to migrate your pre-defined database from Microsoft SQL Server 2017 LocalDB to Microsoft SQL Server. The migration will include:

- Configurations
- Revisions
- Deployment history log
- Users and groups
- Security Roles

Create a new database with any name in Microsoft SQL Server Management Studio. The database is not added automatically by the migration process. In this example, a database is created in Microsoft SQL Server Express.



Click the Test button to validate the connection.

SQL Server properties for Lasernet Config service						
Backend: OSQL Server LocalDB OSQL Server Standalone						
SQL Server						
Server:	SERVERNAME\SQLEXPRESS					
<u>U</u> sername:	Sa					
Password:	•••••					
Database:	LasernetConfig					
Tes	t					
	OK Cancel					

When the **OK** button becomes active, the connection is successfully established. Click the button to start the migration process.





A file with the connection settings is created in the folder.

C:\ProgramData\Formpipe Software\Lasernet 10\Config\Default\sqlserver.json

The Lasernet Config Server is now connected to the Microsoft SQL Server. No further actions are needed.

You cannot migrate the opposite way around. If the file **sqlserver.json** is removed, the Lasernet Config Server will connect to the Microsoft SQL Compact 4.0 Server and use the same revision of the database from before the migration.

5.7.1.1 Windows User Authentication

Support for Windows User Authentication in SQL Server is supported by the Lasernet Config Server, by leaving username and password empty in the Lasernet Licenser Manager -> Config SQL Server settings

SQL Server properties for Lasernet Config service					
Backend:	SQL Server LocalDB SQL Server Standalone				
SQL Serv	er				
Server:	SERVERNAME\SQLEXPRESS				
Username:	I				
Password:					
Database:	LasernetConfig				
Tes	t				
	×				
	OK Cancel				

and authenticate the Lasernet Config 9 Service as the Windows user.

	Log On	Recovery	Dependencies	
Log on	as: al System	account	ei wille elevation	
Allow service to in This account:		sc	luser@domain.com	Browse
Pas	sword:	•	•••••	
Cor	nfirm passv	word:	•••••	



5.8 Multi-users

Multiple users can work with the same configuration from different computers at the same time.

A built-in lock system handles locked and non-committed objects from being edited at the same time.

We recommend that you create unique users on the Lasernet Config Server for each user working with the Lasernet Developer, in order to track changes and commits as well as handling object locks in the configuration.

When an object is added, opened or modified, a lock symbol will appear next to it with information about who has locked it and when. Objects are locked by both GUID and name. The name of an added object is locked for any user until it is either commited or reverted.

Lasemet Dutput Management - Lasemet Developer 10						? – 🗆 X			
Ele Edit Servers Yew Berlson Help									
💅 Deploy 🛞 Patch 🛛 Validate	Commit 🛛 👅 Revert	🕑 History 🛛 🄇	🗗 Add 🎄 Edit	Remove Filter	×				
Servers d	Diagram								
Default	Name	▲ Flag Typ	pe Inactive	Details	Default Destination	Job Destination	Job Event	Modifiers	Description Locked By
Prod	🛃 Input								
	📒 File Input	File	e Input	C:\Lasernet\Input*.xml		File Output			
Modules	🤊 🐠 Engine								
🚽 Input 🐗 Engine 📑 Output	- Output								
Azure Hybrid Connection	File Output	File	e Output	C:\Lasernet\Output\xml					Are on 26/05/2021 15.06
Azure Service Bus									

An object is unlocked when it is committed, or if it is closed without changes. An object is also unlocked if its properties are reverted to the same values as in the previous revision.

A user of the admin group is allowed to remove listed locks for any user from the **Revision** \rightarrow **Locks** dialog.

	Lasernet Output Management - Lasernet Developer 10
<u>File Edit Servers View Revision</u>	Help
💅 Deploy 🚸 Patch 🕑 Validate	- Commit 👕 Revert 🚯 History 🌼 Edit 💿 Remove 🍸 Filter 🗙
Servers Master	Ø Text to search for X Ø Refresh Match whole word Match case Ø Objects E Resources
Default	Name Property Value Inactive Description Created Date Modified Date Created By Modified By
Prod	Lodis X
	Object Type Locked By Locked Date Persistent
	🔒 File Output Module 🙎 administrator 🚍 26/05/2021 15.06 🖂
	Remove
	Close

Important: All the modified settings of a non-committed object are immediately lost for a logged in user, or the next time the configuration opens.