Formpipe.
Lasernet

Lasernet 9

Installation

1 INTRODUCTION

1.1 Who Should Use This Guide

This guide is written for the Lasernet system administrator. It provides step-by-step instructions on how to install Lasernet 9.

2 TERMS OF USE

No part of this publication may be reproduced, transmitted, transcribed, or translated into any language in any form by any means without the prior written permission of Formpipe Software. The information in this manual is subject to change without notice. Any company names or data is fictive unless otherwise stated.

Formpipe Software shall not be liable for any loss or damage whatsoever arising from the use of this manual and the information contained therein (including errors or omissions).

Trademarks of other companies mentioned in this document appear for identification purposes only and are the property of their respective companies

© 2020 Formpipe Software

3 BEFORE YOU BEGIN

3.1 License

Lasernet 9 requires a valid end-user license. Please contact your reseller who will be able to assist you. The license must be added after the installation of the software using Lasernet License Manager. When uninstalling Lasernet your license will not be deleted. You must manually deactivate your license before uninstalling Lasernet so that it can be used on a different server when required.

3.2   Printer setup

Lasernet 9 will automatically install or update printer drivers and the required Windows spooler components when starting the Lasernet 9 service for the first time.

If you need to install the printer drivers manually the 32/64 bit drivers can be found in %InstallDir% →Drivers directory.

Uninstalling Lasernet 9 will not remove Windows spooler components created by Lasernet or any user.

3.3 Upgrade from previous Lasernet versions

This manual details the upgrade process from Lasernet 6.2 and above, to Lasernet 9. Whilst many functions and settings are the same as in previous versions, there are many new features that have been implemented in this version. As such we recommend that you read this manual through carefully before you begin the upgrade process.

If you are not upgrading from a previous version of Lasernet you can skip this chapter.

3.3.1 Migration of setup

There is a built-in migration tool in Lasernet 9 which helps you to upgrade your existing setup from previous versions of Lasernet.

3.3.2   Lasernet 6.2 vs. 9

Not all JavaScript functions developed in Lasernet 6.2 and older are compatible with Lasernet 9. Please ensure that all scripts added to the configuration are compatible with Lasernet 9 before upgrading.

A list of modules from previous versions that have been phased out or replaced with new solutions can be found on the following page.

3.3.3   Lasernet 6.5 vs. 9

The modules present in Lasernet versions 6.5 and below which have been phased out, are listed below. The replacement module or solution is listed alongside.

No	Phased out modules	New module or solution in Lasernet 6.5
1	Conversion (PDF)	PDF Engine
2	Conversion (Security)	PDF Security
3	Conversion (HTML)	HTML code with embedded JobInfos generated in external HTML editor (not bundled with Lasernet)
4	Conversion (RTF)	External PDF2Word app executed via Process Engine (not bundled with Lasernet)
5	Conversion (XLS)	CSV file via JavaScript
6	Simple PDF to Text	PDF to Text modifier (output not compatible with previous module)
7	JD Edwards PDF to Text	PDF to Text modifier (output not compatible with previous module)
8	Excel to Text	Excel to XML (minor changes must be expected in output compared to previous version)
9	Text to EMF	Not supported
10	URL	HTTP and FTP Modules
11	ZIP	Compression module

3.3.4   Lasernet 6.6 and 6.7 vs. 9

All existing modules in Lasernet 6.6 and 6.7 are compatible with Lasernet 9, but the algorithm for two of the conversion modules has been improved, which can cause the output result to include minor differences compared to previous versions.

No	Modules	Important note
1	PDF to Text	Minor changes in text output format after conversion must be expected if upgrading from versions older than Lasernet 6.7.1
2	Excel to XML	Lasernet 9 does not require Microsoft Excel for converting Excel files to XML (was required in 6.6. and 6.7 only). Minor changes in XML output format after conversion must be expected

3.3.5   Other changes to be aware of

**Form Engine: No extra space from empty rearranges**

When there is no rearrange data the resulting output will be empty. In earlier versions the resulting output was a single space character. This will mainly affect merged rearranges and will give users more control over exactly when to add spaces. If you rely on rearranges with no data to create a space you will need to update your configuration and manually the necessary space.

Form Engine: Middle horizontal alignment changed

The interpretation of the Y value for rearranges with middle box horizontal alignment has been changed to more easily center boxes around a coordinate.

If your configuration contains rearranges with middle horizontal alignment, you may need to reposition them after upgrading.

The left image shows the Lasernet Form Editor 6.5 interpretation. The right image shows the Lasernet Form Editor 9 interpretation.
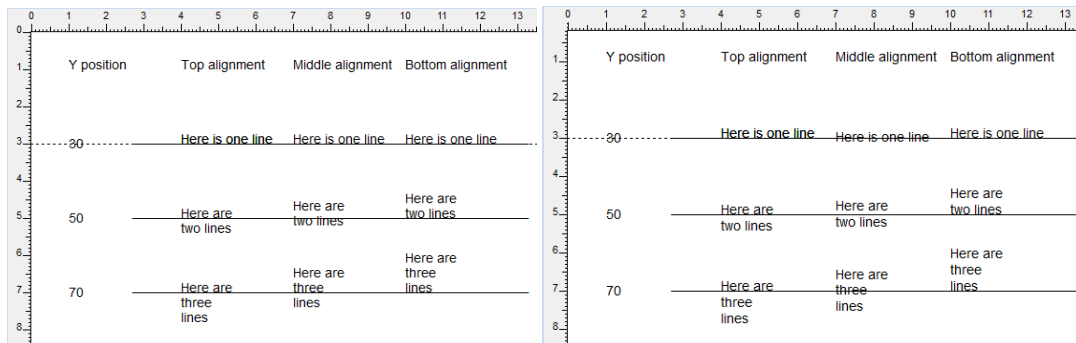
Form Engine: Number in script is handled by regional settings.

Manipulating a string as a number via script will be handled automatically by the settings of your regional number format in the output settings of your form.

```
function CalcPageNumber()
{
        var intFirst = "1";
        var intSecond = "2";
        intFirst = parseInt(intFirst) + parseInt(intSecond);
        return intFirst;
}
```

When returning the result of this example into the output of a form, in Lasernet Form Editor 6.5, the number format will not be affected by the regional settings. The result will be: 3

When returning the result of this example into the output of a form, in Lasernet Form Editor 9, the number format will be affected by the regional settings. The result will be: 3.00

In this example the default number format in the regional settings is defined as: 9.99

If the calculated number is the result of the current rearrange, you will receive a warning in the error log:

Rearrange <ObjectName> has no format type – number will be interpreted as number!

Any rearrange creating this warning must be edited manually and the proper number format must be defined in the output number format settings of the rearrange:
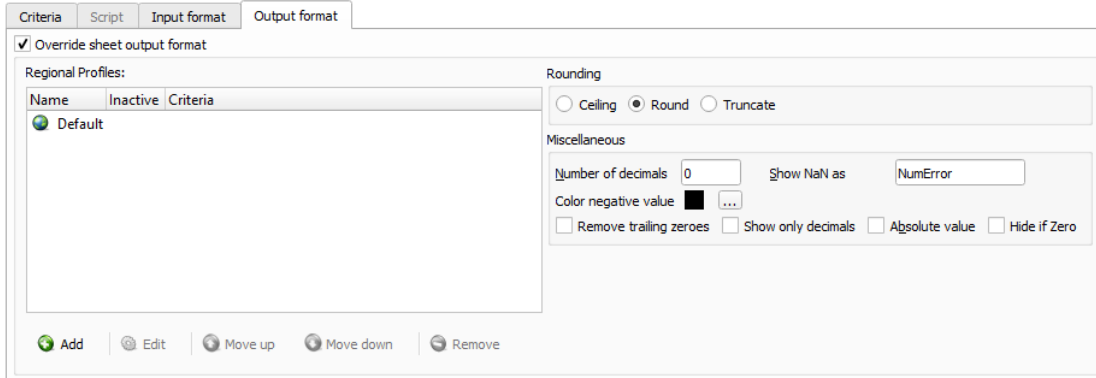
After the introduction of Regional Profiles in Lasernet 6.6 the method for parsing a rearrange as a number in script has changed. The thousand and decimal separators and indication of negative values must always be set as parameters for the toNumber method as it is not able to use the settings from a regional profile.

See more info in the scripting manual about the toNumber method.

Form Engine: addPagePrinterProfile and addPrinterProfile in script will replace selections in form

In Lasernet 6.6 and 6.7 the selections in the printer profile page settings overwrite the script commands. When upgrading to Lasernet 9 the behavior will change. Lasernet 9 will use the same behavior for running addPagePrinterProfile and addPrinterProfile via script as in Lasernet 6.2 and 6.5. Running a printer profile from script will now overwrite the selection defined in the page settings of the form.

Binary JobData: Substitution of JobInfos is removed

JobInfos, containing binary data, in Lasernet 7 and 8 will no longer automatically scan for strings like #ThisIsMyJobInfoName# (hash+name+hash) and substitute the string with the value of the JobInfo name.

Migration of deprecated image settings

In Lasernet 6.6 and 6.7 a list of image types were marked as "Deprecated" in the Lasernet Form Editor. In Lasernet 9 the settings are migrated to new standards, which, in some scenarios, can cause an image to scale differently.
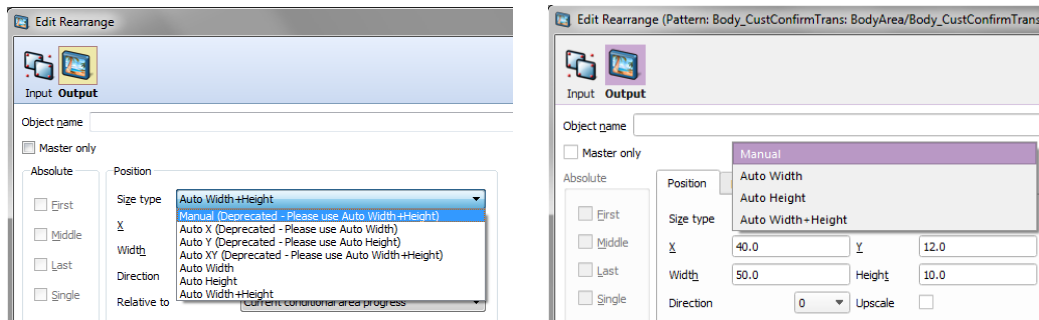
3.3.6   Lasernet 7 vs. 9

Only 64-bit support

Lasernet 9 software is only available in 64-bit versions. Windows 32-bit platforms are no longer supported.

Discontinued modules

- Lasernet Supervisor
- PBS0601
- XML Transformer modifier
- Database Command modifier

Lasernet Supervisor

Not supported in Lasernet 9. The existing functionalities are already available in various modules and Windows settings. The module is planned to be replaced with alternative functionality in the future.

PBS0601

Not supported in Lasernet 9.

XML Transformer Modifier

The XML Transformer modifier is discontinued in Lasernet 9. The migration from Lasernet 6.x and 7 to Lasernet 9 will automatically migrate modifiers to XML Transformer forms and insert them at the same modifier events. Also scripts will be migrated with proper commands to run XML Transformer forms instead of modifiers.

Database Command modifier

The Database Command modifier is discontinued in Lasernet 9. The migration from Lasernet 6.x and 7 to Lasernet 9 will automatically migrate modifiers to Database Commands and insert them at the same modifier events. Also scripts will be migrated to run Database Commands instead of modifiers.

Import Overlay Files

If you want to import printed overlays via Lasernet Developer you must activate the Overlay Files button in the Forms sections. Here you will find a view of all available overlays attached to the configuration and an **"Import"** function for new overlays generated via the Lasernet Print Capture.

DataFormat

The JobInfo named DataFormat, created by the Form Engine, will be set to XML for XML as output. In previous versions the value was set to TEXT.

3.3.7 Lasernet 8 vs. 9

Discontinued module

The File Database module is no longer supported and will not be migrated. Please use the File Retriever instead.

Discontinued protocol

MAPI support is removed from Mail Input and Output modules. Please use the Exchange Module or other protocols that are supported by Mail modules. The Mail module will still appear in configuration, but the MAPI protocol will not be migrated.

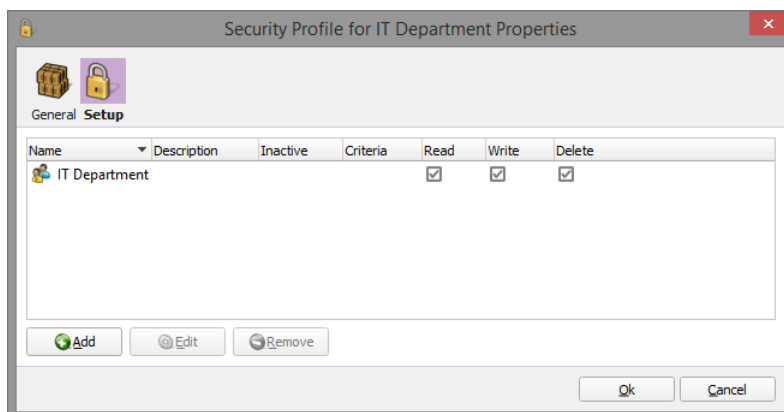**Users, groups and security profiles**

Users, groups and security profiles added to previous versions are not migrated to Lasernet 9, because the objects are not a part of the configuration anymore. Security profiles added to modules are now named as security roles. The reference to the security roles is still included in the security settings of the module, but the object does not exist in the configuration.

Users, groups and security roles are now added and managed on the Lasernet Configuration Server. Create your old users, groups and security roles with the same names as in the previous version and the user references added to the security tab of the module will work in the same way in Lasernet 9 as before.
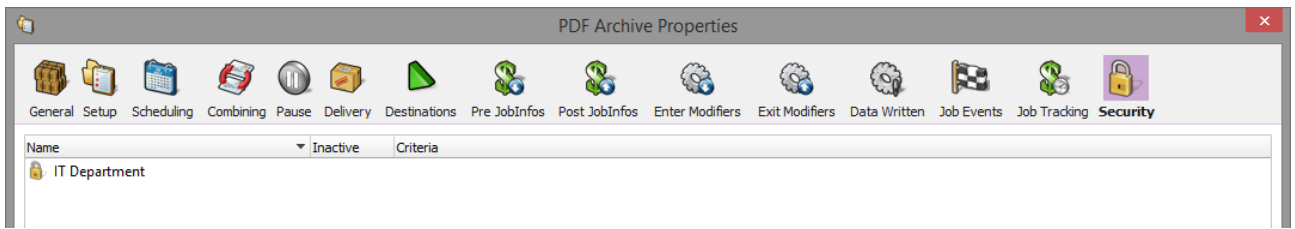
Users, groups and security profiles added to the configuration in Lasernet 8 are not migrated to Lasernet 9.
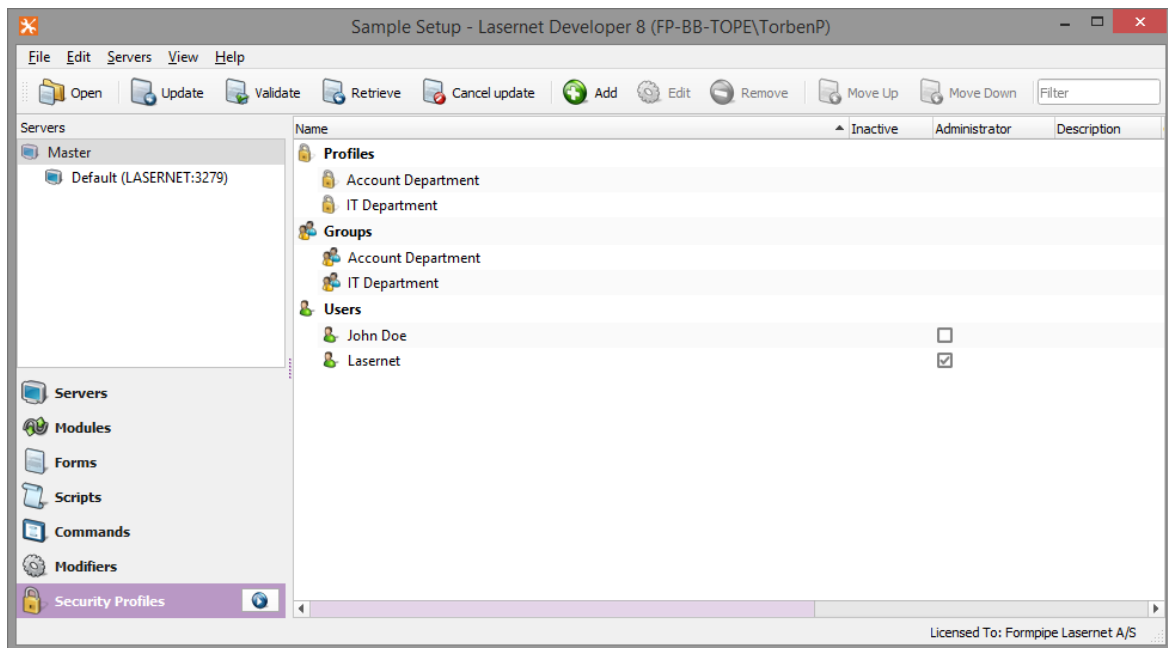
Access rights managed in Lasernet 8 are not migrated to Lasernet 9.

Security profile names in Lasernet 8 modules are migrated (using the same names) to roles in Lasernet 9.

Example of users and groups added manually to the Lasernet Configuration server in Lasernet 9 after a migration.

Example of security role names added manually to the Lasernet Configuration server in Lasernet 9 after a migration.

Example of security roles settings added to the Lasernet Configuration server in Lasernet 9 after a migration.

The access rights for the Client are managed in a similar manner to the access rights in Lasernet 8.


Form recognition.

Lasernet Developer 9 no longer includes a form index. To preserve your form list and form recognition order the form index will be migrated to a new setting called 'Priority'. Priority works by assigning a number between 0 (high priority) and 999999 (low priority) to a form, to decide what order it should be processed in.

During a migration the very first form is given a priority value of 100, with each subsequent form getting a higher value (in +10 increments) as their priority lessens. This is to guarantee backward compatibility with previous versions of Lasernet, where the order of the form list affected the recognition order. When adding new forms to your configuration, we highly recommend you leave the priority empty (index = 0) and always ensure that you operate with unique criteria in your forms. If this is not possible then you must manually set the form priority using values between 0 and 999999.

Lasernet 9 has a new list of rules for how it recognizes forms, as such it is important that you create a unique criteria to match against, for all forms added to a configuration. As an alternative, a priority match can be added to the properties of a form instead. The rules are similar for forms with XML or text input:

- Forms without a form recognition, are not recognized and not processed
- If multiple forms are recognized, only the form with the highest priority (lowest number) will be processed. If no priority is added to a form, the forms are prioritized alphabetically.
- If several forms are recognized, all with same priority, the forms are prioritized alphabetically

The 'Move up' and 'Move down' index functionality is removed in Lasernet 9. To group your forms in the list we recommend that you add a keyword to your forms, or set a value in your formtype field and sort this column in the UI.
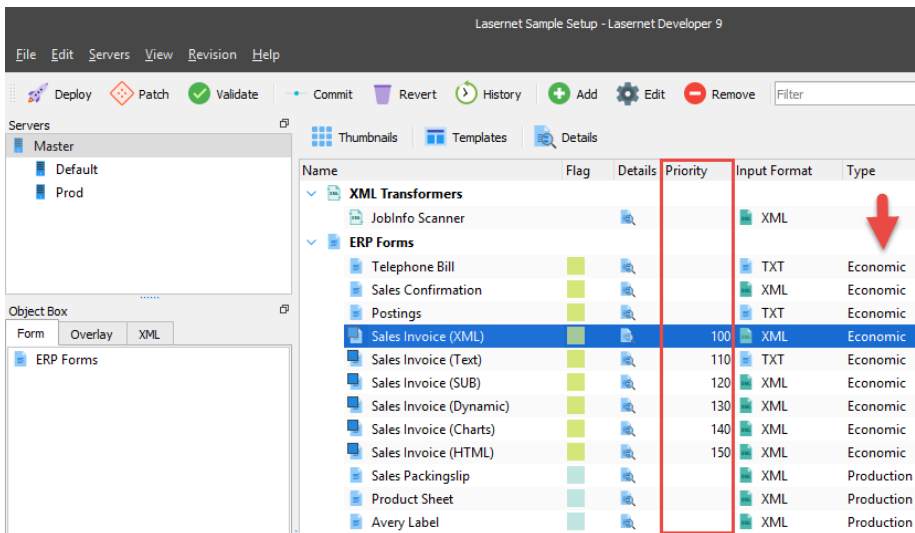
### 3.3.8   Running Lasernet 9 on same server as older versions

It is not recommended to run the Lasernet Server 8 simultaneously with previous versions without a deep understanding of the Lasernet architecture. Job data cannot be exchanged between server modules in different versions of Lasernet and you must be aware of port conflicts.

If you decide to install Lasernet Developer 8 and older versions of the Lasernet Developer on the same computer for easier maintenance of setups, please note:

- The Lasernet Print Capture service will generate overlays in the format created by the last installed print capture queue.
- Lasernet Print Capture 9 will create Windows EMF as output format for overlays. In previous versions (7 and older) the overlay format must expected to be Lasernet EMF.

3.3.9   Server settings and new syntax for destinations

Server names and port number are no longer maintained in the configuration files, compared to previous versions of Lasernet, and will now need the instance name only.
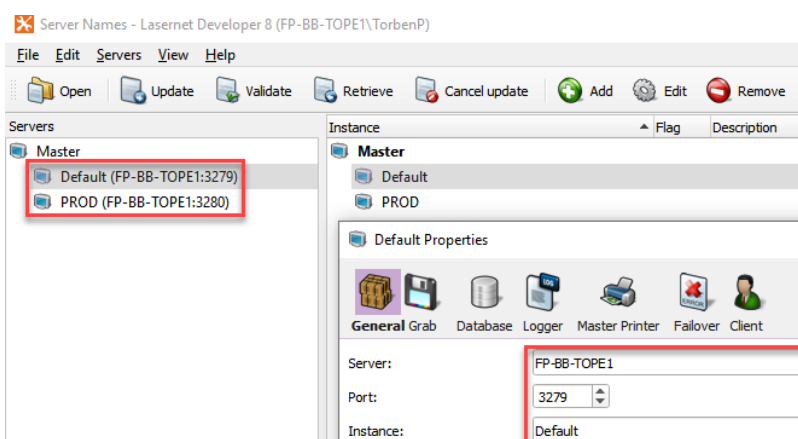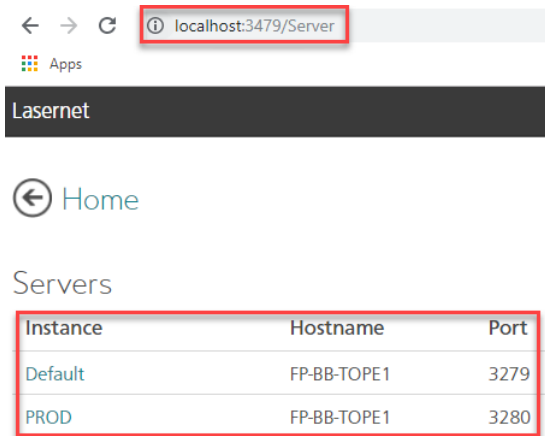

Lasernet 8
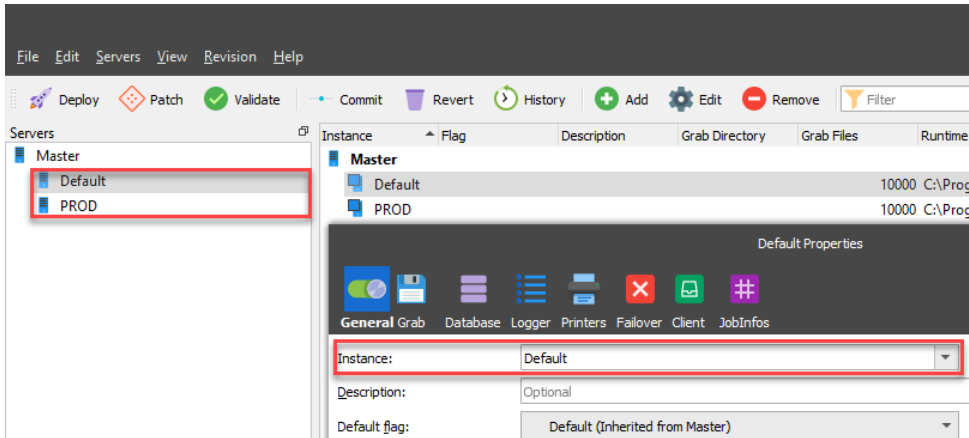
Lasernet 9

The binding between instance name and the server name including port number are maintained on the Lasernet Configuration Server.

The module path, for connecting modules between Lasernet Servers, must manually be changed from the old syntax: **servername:portnumber/modulename**
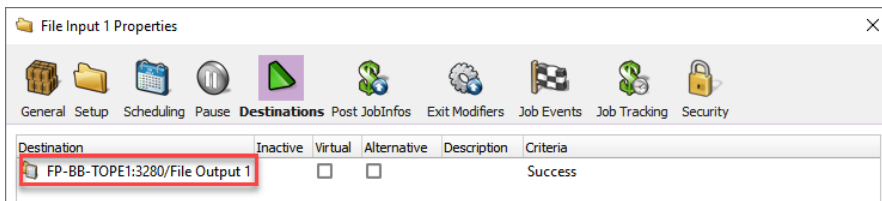
Lasernet 8

to the new syntax: **instance/modulename**
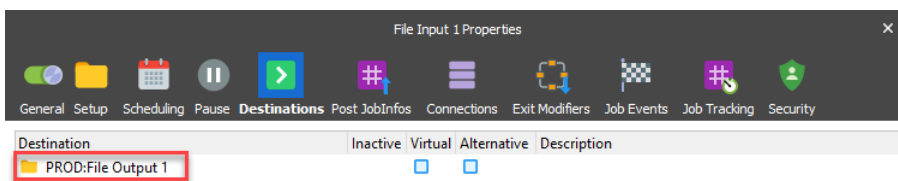
Lasernet 9

A module path can figure in any module, form and script, which are configured to exchange jobs in Lasernet. It is recommended to use the Search functionality in the Lasernet Developer to locate any module path that appear in a setup and replace them with new syntax after a migration.

4 INSTALLATION & SETUP

4.1 Installing Lasernet 9

To install Lasernet 9 you will need at least 600 MB of available disk space. This is for the installation only. Additional disk space will be required; the amount will vary depending on your configuration.

Run the "Lasernet 9.X.exe" installer and the installation procedure will start. Please note: You can only install Lasernet 9 on 64 bit systems.

4.1.1 Software requirements

Lasernet 9 has the following software requirements:

Supported operating systems

Windows 8, Windows 8.1, Windows 10, Windows Server 2012, Windows Server 2016, Windows 2019 with minimum two cores and 64 bit (x64) processors.

Lasernet x64

- Microsoft SQL Server Compact 4.0 SP1 x64

- Microsoft Visual C++ 2017 Redistributable x64

- Microsoft .NET Framework 3.5

- Microsoft .NET Framework 4.8

During the installation, the above components will also be added / downloaded automatically by the installer. If no Internet connection is present, please ensure that you manually download and install the .NET frameworks as they are not included in the installer.

4.1.2 Welcome
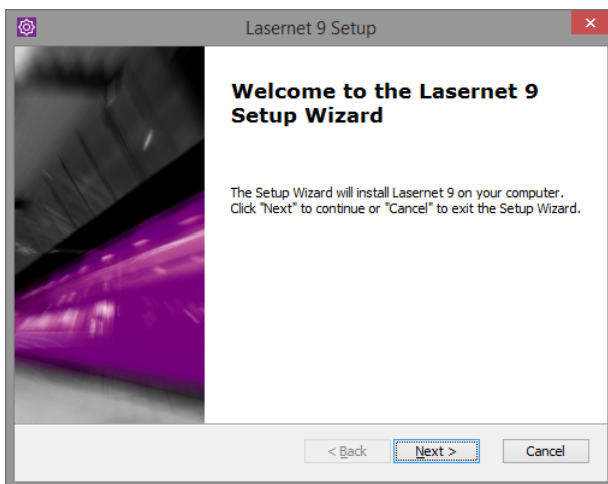
Click **Next** to proceed the installation.

4.1.3   License Agreement

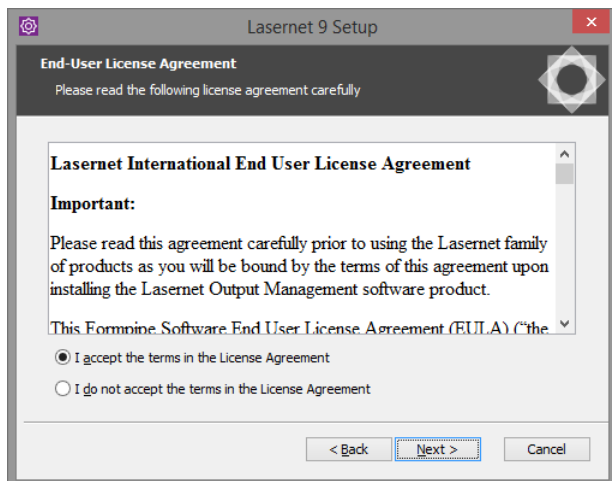Please read the Lasernet International End User License Agreement. Select "I agree to the terms of this license agreement", if you agree and click **Next** to proceed. If you do not agree, the software will not be installed.

4.1.4   Choose Setup Type
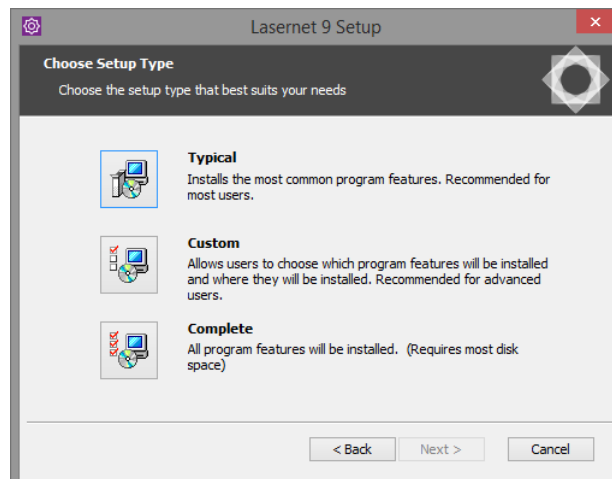
Typical

All program features, documentation and sample setup will be installed.

Custom

Choose which program and documentation features will be installed and where they will be located.

Complete

All program features, documentation, sample setup and SDK samples will be installed.

4.1.5   Custom Setup

If you have selected a custom setup, click on the icons in the tree to select the packages that you want to install.

By default all available packages are selected. You can read about the contents of each package on the right hand side of the window, as each package is selected.
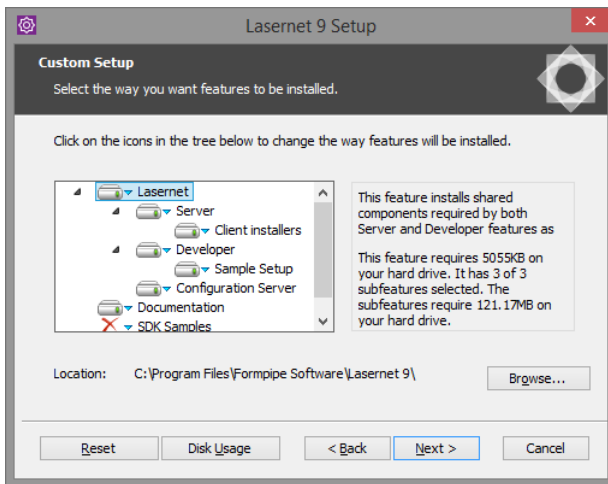
 Click on the hard disk icon if you want to deselect packages from the list.

Click 'Browse' to change the default install location.

Lasernet

All common components will be installed.

Server

This feature installs Lasernet server components (Lasernet Service, Supervisor and Monitor).

Client installers

Click to include the Lasernet Client and / or Lasernet OCR MSI installers in the Lasernet destination folder. This will allow Lasernet Clients or OCR applications to automatically update. Both Lasernet Client and Lasernet OCR can be installed remotely via the Lasernet Launcher or a web browser.

Developer

This feature will install Lasernet development tools (Lasernet Developer and Print Capture).

Sample Setup

This feature installs the Lasernet Sample setup.

Documentation

This feature installs all of the Lasernet Manuals.

SDK Samples

Activate this package to install a demo setup for Lasernet Developer and .NET sample code to develop modules with the Lasernet SDK.

Location

By default Lasernet installs to "C:\Program Files\Formpipe Software\Lasernet 9" (your path may vary depending on your OS language). The default installation directory can be changed by clicking 'Browse' and browsing to a new location. Click **Next** to proceed.

4.1.6   Ready to install
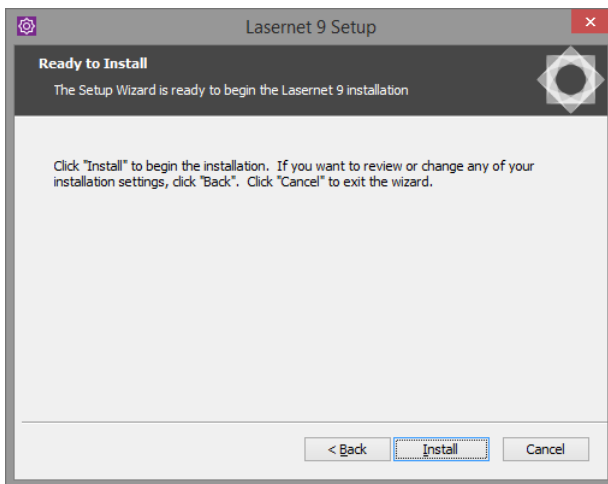
The Lasernet installation has now gathered all the required information. Click **Install** to proceed or **Back** to correct (or review) any information given.

4.1.7   Installing files
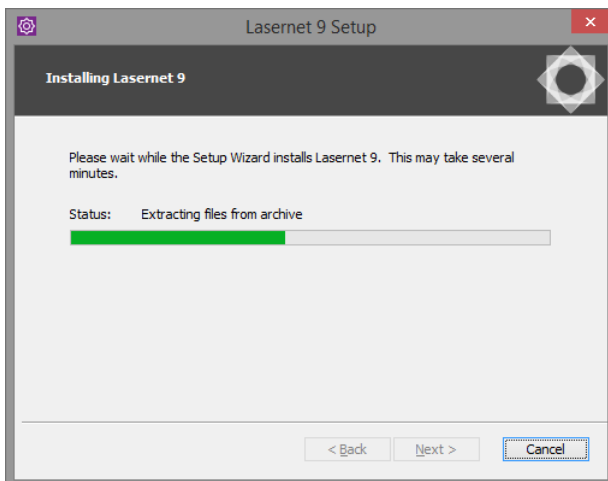
Wait for the installation program to finish or click **Cancel** to cancel the installation process.

4.1.8 Installation Complete
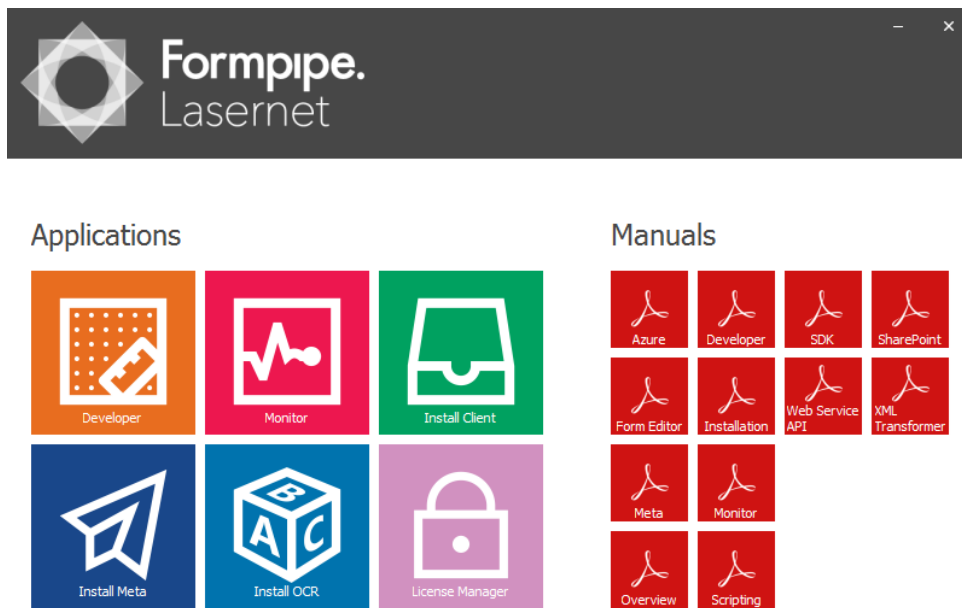
The installation has finished successfully when the Lasernet Launcher appears.

If it is the first time that Lasernet 9 has been installed on the system, select the 'License Manager'. This will allow you to add your first Lasernet 9 service and activate the license for the Server or Developer.

4.2 Lasernet License Manager

The Lasernet License Manager is used to administer your licenses for Lasernet Server and Lasernet Developer. The application also allows you to add and remove Lasernet service instances.

License activation is bound to the name and domain of the machine Lasernet is installed on. If the computer name or domain is changed, the license will cease to function. Also, you will not be able to deactivate your license if you change the name and/or domain of your machine. Before renaming your machine, you must deactivate your license.

If you forget to deactivate your license before changing the name and/or domain, you must restore the machine and domain name to the one used to activate your license. Then you'll be able to deactivate your license so you can activate it again after the name change.

4.2.1 Activation codes

The license code is used to activate your license on a machine. You will receive separate codes for each Lasernet Server you have purchased, as well as separate codes for each Lasernet Developer.

The activation code will allow you to install Lasernet Server or Lasernet Developer (depending on license type) on a single machine.
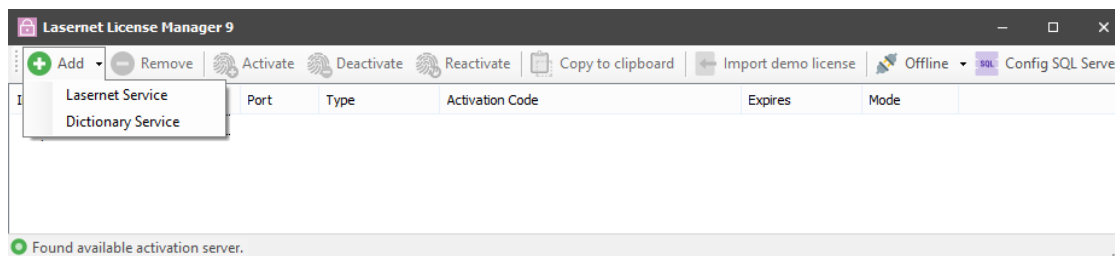
A server activation code will start with the letters "SRV-", followed by 8 groups of 4 characters each.

A developer activation code will start the letters "DEV-", followed by 8 groups of 4 characters each.

IMPORTANT: The activation is bound to the machine using the machine name and, if available, the domain name. If you decide to rename the machine, join or leave a domain, you must deactivate your license first. You will not be able to deactivate your license once the machine name and/or domain has changed.
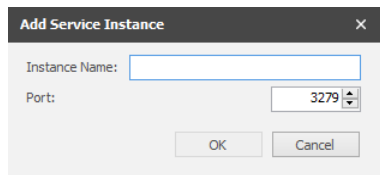
4.2.2 Add service instance

Lasernet service instances are not added automatically by the installer. To add one manually, start the Lasernet License Manager from the Lasernet Launcher or the program folder and click the 'Add' button, then 'Lasernet Service'.

Type an instance name and free port number not already used by other applications running on the same server. We recommend that you name your Lasernet Service instance with its primary function, so that it is easy to identify, for example: "Production", "PreProd", "Development" or a company or location ID.

The port number has to be unique and not used by other Lasernet service instances or applications running on the same server. As default Lasernet will suggest port 3279.

Click OK to accept the settings.

Note: It is also possible to add a license for the Dictionary service at this stage. To learn more about the Dictionary Service you must install the application Lasernet OCR 9 and read the chapter on the Dictionary Service in the OCR Manual.

You will now be prompted to insert an activation code. A valid server activation code starts with SRV and contains 8 groups of 4 characters each, e.g. SRV-BMDS-SUGX -ABCD-EFGH-IJKL-MNOP-QRST.

The "Use floating license" option is primarily for cloud based systems that have a constant internet connection. The license is updated and ren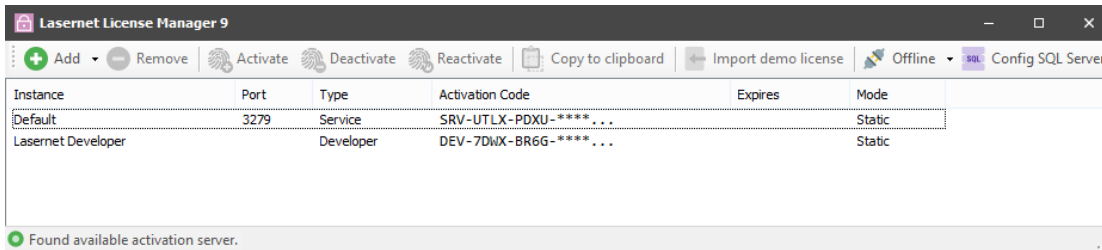ewed at regular short intervals. Should the server go down and become unable to perform a renewal, the license is then made available for a failover server to use, to ensure minimal disruption in service.

Unless you have properly configured your cloud systems for high availability, we recommend that you use a static license.

If you do not enter a valid activation code and then Cancel out of the window, the service will be installed with the selected instance name and port number, but will not be able to process any jobs.

When the activation code has been accepted you will be able to view the list of activated instances:

and services in Windows:

To protect your activation code, part of it is obscured with asterisks. If you want to see the activation code in full, right click on the instance in the Lasernet License Manager and select "Copy to clipboard".

By default you can add up to five instances of the Lasernet 9 service, each with a unique port number. If support for additional instances is required, contact your reseller for more information.

4.2.3   Online activation

The Lasernet License Manager can be used to add new instances of the Lasernet Service or to activate, deactivate or reactive an activation code for existing instances.
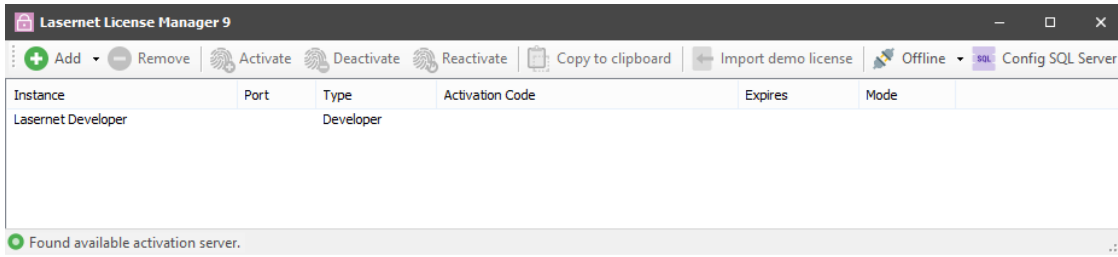
Select the instance, you want to activate, and click the **Activate** button in the tool bar.

A valid server activation code starts with SRV and contains of 8 groups of 4 characters each, e.g. SRV-Z7J3-3VUS - ABCD-EFGH-IJKL-MNOP-QRST.

A valid developer activation code starts with DEV and contains of 8 groups of 4 characters each, e.g. DEV-HG3J-A7HV-ABCD-EFGH-IJKL-MNOP-QRST-UVWY

IMPORTANT: <u>In order to activate your server or developer, an internet connection is required</u>. Once activated, an internet connection is no longer required.

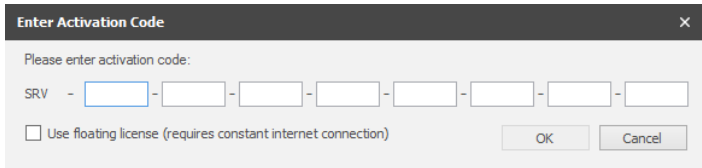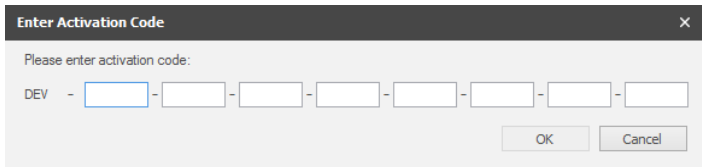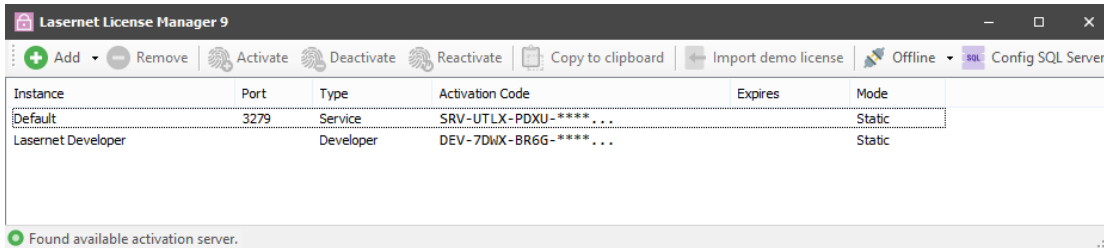When the activation code has been entered, click OK to activate your license.

When the activation code is accepted, the instance of Lasernet Service 9 will be running with the modules and packages attached to your license.

IMPORTANT: If you want to move the software to another computer, you must deactivate your license, before un-installing and installing on another computer.

4.2.4   Online deactivation

Start the Lasernet License Manager from the Lasernet Launcher or the program folder

Select the Lasernet service instance or Lasernet Developer that you wish to deactivate. When clicking the **Deactivate** button in the toolbar, the license for the selected instance will be removed.

IMPORTANT: You must deactivate your license before moving Lasernet to another machine/server, or before changing the name or domain of the server. You will not be able to activate Lasernet using your activation code, if the same activation code has been used to activate Lasernet on another server. This also applies to Lasernet Developer.

IMPORTANT: To deactivate your server or developer *it must have access to the Internet* during the deactivation process.

4.2.5　Online reactivation

If you decide to upgrade your Lasernet server with additional modules and packages, you'll receive a communication stating which packages and modules are now included in your license. This communication will contain the same activation code as your previous license.

In order to benefit from the new features available in your license, you need to reactivate it. Simply select the Lasernet service instance in question, and click the **Reactivate** button in the toolbar. This will update your license with the new features that your license now provides.

4.2.6　Offline activation

It is possible to activate a Lasernet server or developer using an offline activation process if the machine running Lasernet does not have access to the internet. You should however use the online activation process whenever possible.

The offline activation process requires another machine with internet access that has the Lasernet License Manager application installed.

For this example, the machine that needs activation will be referred to as the Lasernet server, and the machine with the License Manager and internet access will be referred to as the helper machine.

The offline activation process requires a number of steps to complete. First, you must generate an activation request file on the Lasernet server for the instance (or developer) that needs activation. The file must be transferred to the helper machine by hand (for example via network or a USB stick). On the helper machine, the activation request file will be forwarded to the Lasernet activation server via the internet. When the activation request has been processed by the activation server, it will return an activation response file. This file must be transferred back to the Lasernet server by hand and imported using the License Manager.

IMPORTANT: The offline activation process is vulnerable to failure if the following steps are not performed correctly.

STEP 1: On the Lasernet server, open the Lasernet License Manager and select the service instance or developer that needs activation.

STEP 2: Click the Offline button in the tool bar and select the 'Create activation request' menu item.

STEP 3: Enter a valid activation code and click OK. Remember you can copy and paste the activation code from the license letter.

STEP 4: Choose a location to save the activation request file. You must make a note of the location of the file in order to copy it to the helper machine.

STEP 5: Copy the activation request file from the Lasernet server to the helper machine. This can be done by any means available, such as over a network connection or via a USB stick. The following steps are done on the helper machine.

STEP 6: On the helper machine, start the License Manager application.

STEP 7: Click the Offline button in the tool bar and select the 'Process request' menu item.

STEP 8: Browse to the location of the activation request file that was copied to the helper machine in step 5. Select the activation request file and click Open. The License Manager application will now forward the request to the activation server via the internet.

STEP 9: Choose a location to save the activation response file. You must make a note of the location of the file in order to copy it to the Lasernet server.

STEP 10: Copy the activation response file to the Lasernet server using any means available. The following steps take place on the Lasernet server.

STEP 11: On the Lasernet server, open the License Manager application, and select the service instance or developer that awaits offline activation.

STEP 12: Click the Offline button in the toolbar and select the 'Import activation response' menu item.

STEP 13: Browse to the location of the activation response file that was copied to the Lasernet server in step 10. Select the activation response file and click Open. The activation process is now complete, and the Lasernet instance is licensed and ready for use.

4.2.7   Offline deactivation

It is possible to deactivate a Lasernet server or developer using an offline deactivation process if the machine running Lasernet does not have access to the internet. You should however use the online deactivation process whenever possible.

The offline deactivation process requires another machine with internet access that has the Lasernet License Manager application installed.

For this example, the machine that needs deactivation will be referred to as the Lasernet server, and the machine with the License Manager and internet access will be referred to as the helper machine.

The offline activation process requires a number of steps to complete. First, you must generate a deactivation request file on the Lasernet server for the instance (or developer) that needs deactivation. The file must then be transferred to the helper machine by hand (for example via network or a USB stick). On the helper machine, the deactivation request will be forwarded to the Lasernet activation server via the internet. Unlike the activation process, there is no deactivation response file transferred back to the Lasernet server.

IMPORTANT: The offline deactivation process is vulnerable to failure if the following steps are not performed correctly.

IMPORTANT: The Lasernet service instance or developer will be deactivated as soon as you generate the deactivation request. You **MUST** make sure that the deactivation request is processed in accordance with the steps below in order to be able to use the activation key again later. You will not be able to activate another Lasernet machine with your activation key until you have completed the deactivation process using the steps below, or contacted your reseller and had the current registration removed.

STEP 1: On the Lasernet server, open the Lasernet License Manager and select the service instance or developer that needs deactivation.

STEP 2: Click the Offline button in the tool bar and select the 'Create deactivation request' menu item.

STEP 3: Choose a location to save the deactivation request file. You must make a note of the location of the file in order to copy it to the helper machine.

STEP 4: Copy the deactivation request file to the helper machine. This can be done by any means available, such as over a network connection or via a USB stick. The following steps are done on the helper machine.

STEP 5: On the helper machine, start the License Manager application.

STEP 6: Click the Offline button in the tool bar and select the 'Process request' menu item.

STEP 7: Browse to the location of the deactivation request file copied to the helper machine in step 4. Select the deactivation request file and click Open. The request will now be forwarded to the activation server via the internet. You can now use the activation key to activate a different server.

4.2.8   Offline reactivation

In order to perform an offline reactivation, you must first deactivate the server or developer using the offline deactivation process described in section 4.2.7. When the deactivation process is complete, you must perform the offline activation process described in section 4.2.6.

4.2.9 Cancelling an offline activation request

It is possible to cancel a pending offline activation request on the Lasernet server by selecting the service instance or developer for which an offline activation request was generated, and clicking the Offline button in the tool bar and selecting the 'Cancel activation request' menu item.

This function must only be used to cancel an activation request that has not yet been forwarded to the activation server via the helper machine.

If you cancel a pending activation request that has already been forwarded to the activation server using the helper machine, the activation response will be invalid. You will not be able to import the activation response file on the Lasernet server, and you will not be able to remove the activation registration on the activation server. This means you will no longer be able to use your activation key to activate a different server.

If you cancel an offline activation request that has already been processed by the activation server, please contact your reseller to have the activation cancelled.

4.3   Setting up services and print queues

4.3.1   Services

Lasernet Server 9 includes four main services and two additional services. The Lasernet Print Capture service is automatically added by the installer. The Lasernet 9 service is installed from the Lasernet License Manager:

Lasernet Print Capture: This service will be started automatically by the installation program. When started it creates a Windows print queue named Lasernet Print Capture. The print queue is used for capturing overlay files which can then be imported manually into a Lasernet configuration, via the Lasernet Developer.

A Printer Port named Lasernet Capture will be created in Microsoft Windows. To remove this printer port, the print queue must be deleted before stopping the Lasernet Print Capture.

The service will be removed if you uninstall the software package.

Lasernet 9 (Default:3279): This is the service that is used for running setups (the default install uses the instance name 'Default', running on port 3279). By default, the service Startup Type is set to 'Automatic' and the Status will show as 'Started'. After installation it may be necessary to change the account associated with the service as the default Local System user does not have any network rights. The name of the instance is written between the brackets () and the number after the colon shows the listening port. You can install and run more than one instance of the Lasernet 9 service.

The service will not be removed if you uninstall the software. You have to manually uninstall the service from the Lasernet License Manager. As good practice and to ensure your license can be reused, you should always deactivate the Lasernet license before you uninstall the software.

For more information about instance names and running more than one service at a time, please refer to Appendix A: Lasernet Multi-Service Support.

To start the service or change the account, go to Control Panel -> Administrative Tools -> Services
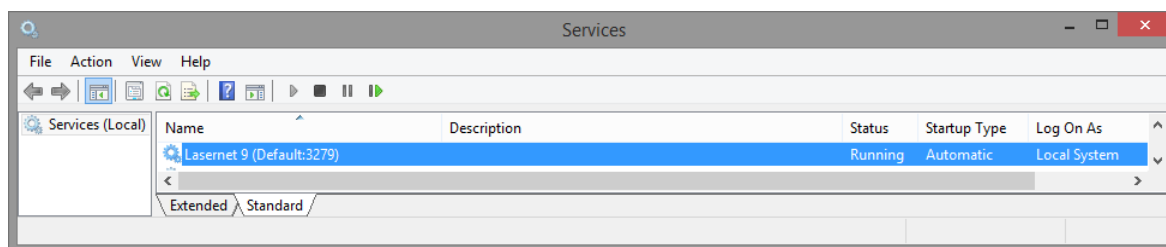
Right-click the Lasernet 9 service and choose 'properties' to set the 'Log-on' account. The chosen account must have a level of administrative privileges which, as a minimum, allows Lasernet to install and update printers.

Lasernet Config 9: A service to manage all the Lasernet Configurations.

Lasernet Portal 9: A service that provides a web interface for managing Lasernet configurations and servers.

Lasernet Dictionary 9: Only required for users running Lasernet Input Management with dictionary support. Added from the Lasernet License Manager.

Lasernet Proxy Meta 9: Allows multiple Meta instances to run on the same machine. Installed by the Lasernet Meta 9 installer.

Folder Permissions

The Lasernet service stores its configuration files in an application data folder. The correct permissions must be set on this folder so that the account used by the Lasernet service can access it. The Lasernet Service stores its data files in the folder:

"C:\ProgramData\Formpipe Software\Lasernet 9"

To set the access rights, browse to the folder in Windows Explorer, right click on it and choose "Properties". Choose the "Security" tab. Add the account that the Lasernet Service is using to run and give the account Full Control to the folder.

4.3.2   Print Queues

Lasernet will automatically install all necessary 32-bit or 64-bit printer components into the Windows spooler system. Printer components will <u>not</u> be removed when uninstalling Lasernet from the computer. This prevents you from losing importing Windows spooler settings when uninstalling Lasernet during an upgrade.
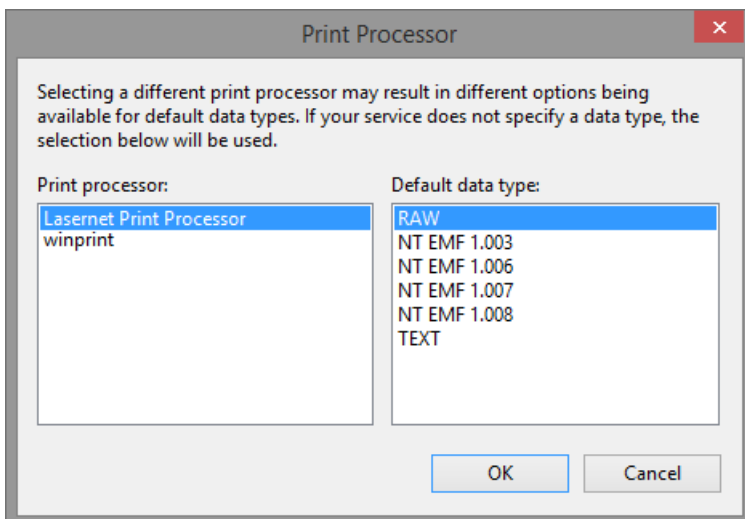
Lasernet Print Capture: Created by the Lasernet Print Capture and used for capturing overlay files which can then be imported manually into a Lasernet configuration, via the Lasernet Developer.
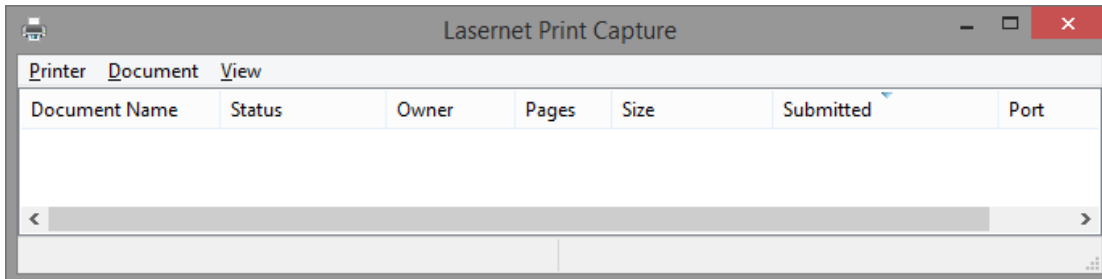
The print queue has user defined device settings for the margin. The default setting for the left margin is set to 6.4 mm and 4.2 mm for the top margin.

The print queue will <u>not</u> be removed automatically when stopping the Lasernet Printer Capture service. This enables you to change the default settings without losing them when restarting the service.

The default print processor is set to Lasernet Print Processor (see advanced tab for your printer queue).

The Lasernet Print Processor will bypass the Windows spooler and a Windows EMF file will be created as the preferred overlay file format.

Lasernet Reference Printer: When starting the Lasernet 9 service it automatically creates a Windows print queue named Lasernet Reference Printer
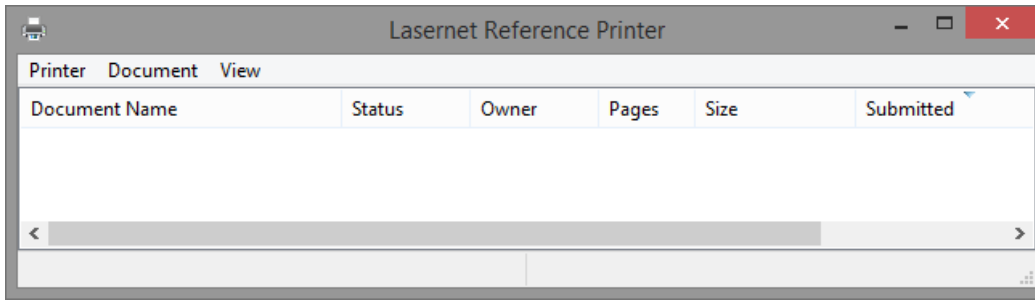
The Lasernet Reference Printer works in a similar way for Lasernet as the Default Windows printer does for most other Windows applications.

By default the print queue uses the Lasernet EMF driver with a left margin of 6.4 mm and a top margin of 4.2 mm. When changing the left and top margins we recommend that you check that the text positions on your forms are as expected. Changing the margin to 0.0 will let you print right to the edge of the sheet, which can be useful in PDF documents.

Caution: Do not manually delete this print queue as it is essential for the [Overlay / Form / PDF] Engine. If the print queue is removed by mistake, you must restart the Lasernet 9 service to re-install it.

4.4 Lasernet Configuration Server 9

When your services have been installed and licensed you can login to the Lasernet Configuration Server.

http://localhost:3479/ or replace localhost with the name of your server where the Lasernet Configuration Server is installed.

Log in as Admin and leave password empty to create a new password.
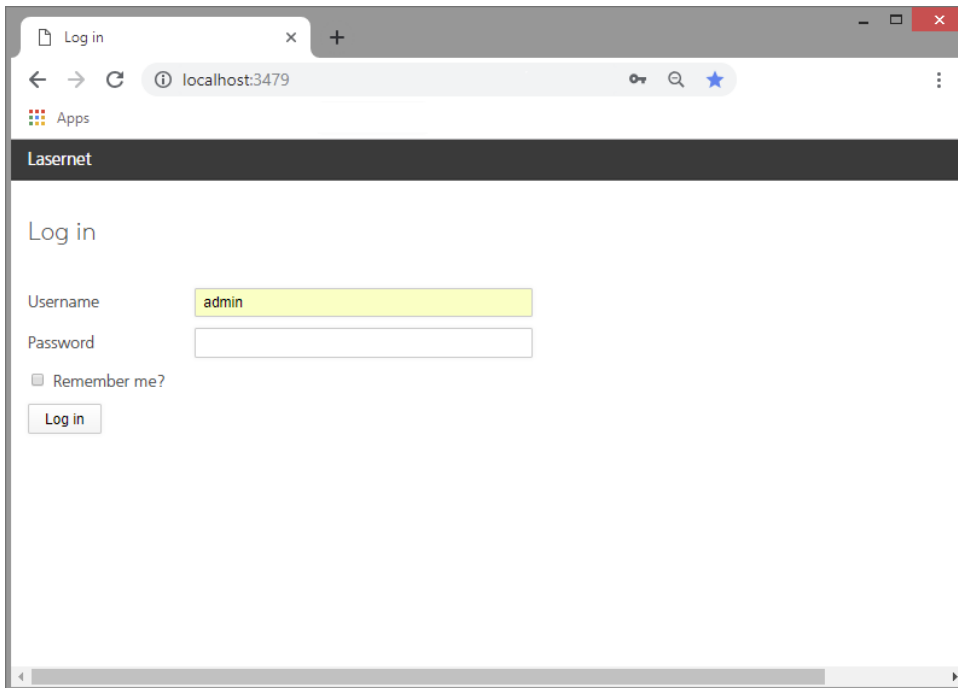
You will then be presented with the new web portal, where you can view configurations, manage deployments, view the history log, as well as manage servers, users, groups and security roles.
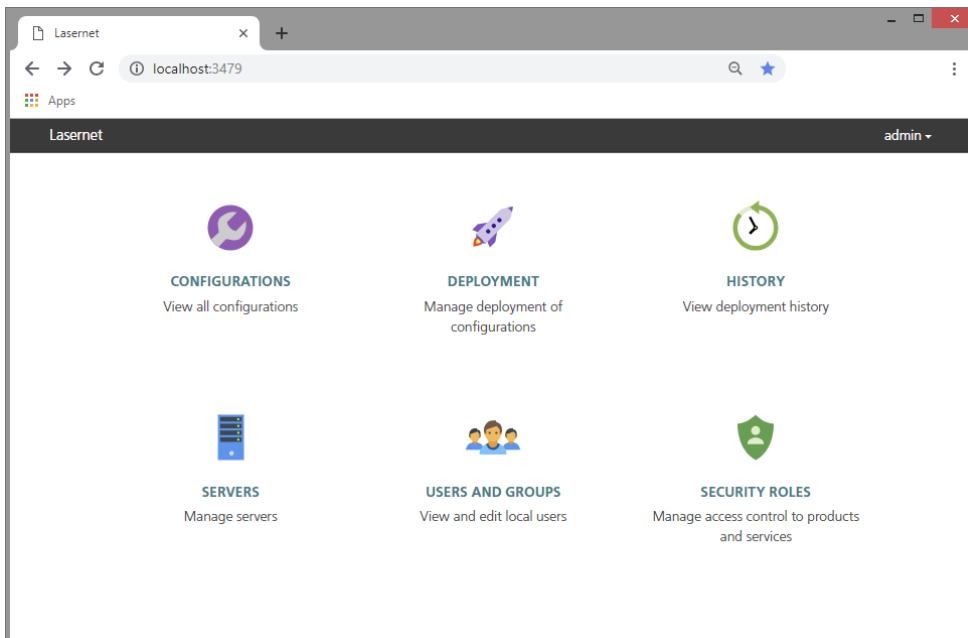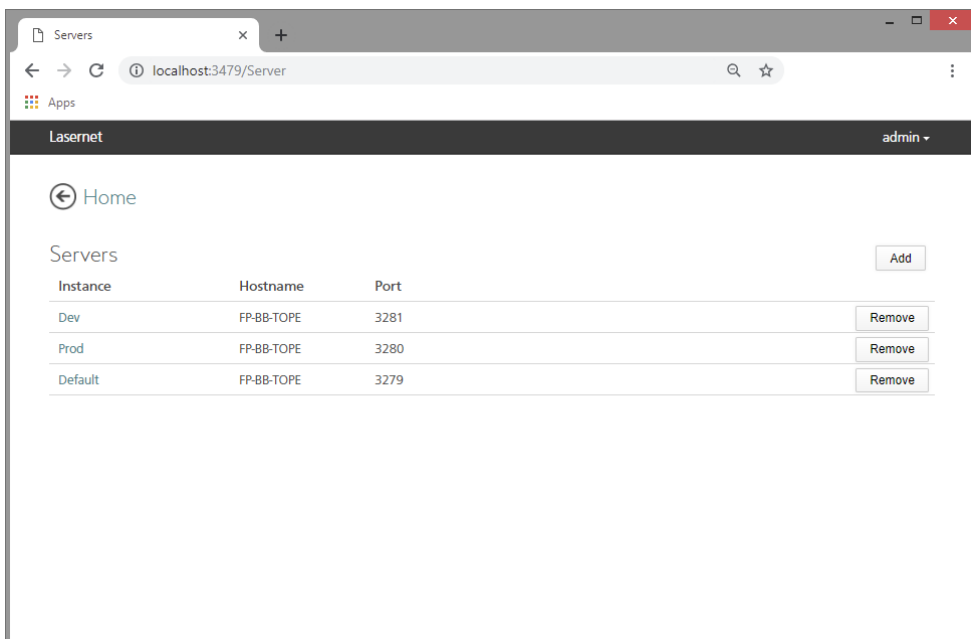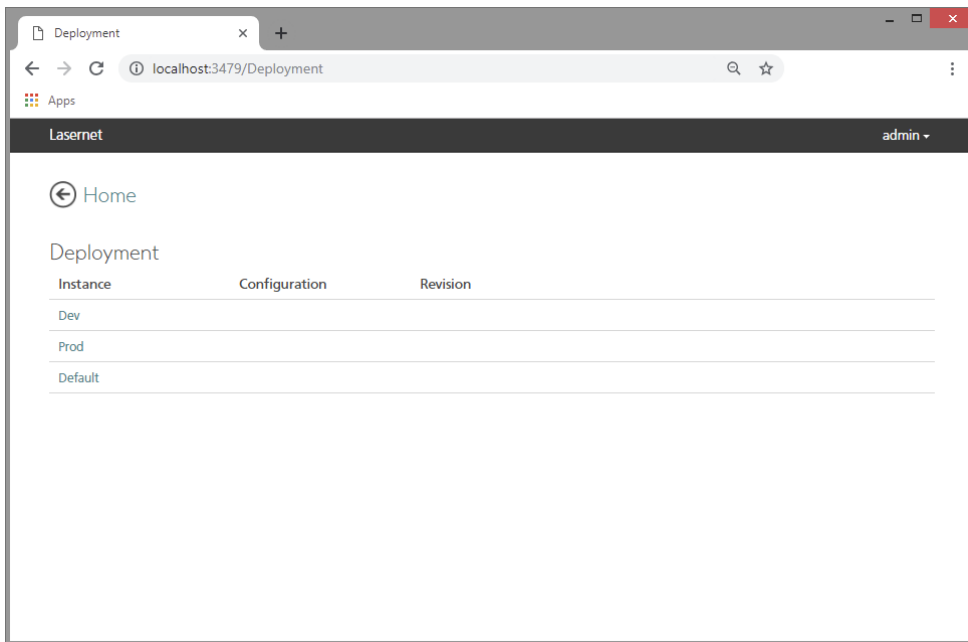

4.4.1   Configurations

This allows you to view, rename and remove configurations in the SQL Server Compact database, which is used as backend store for Lasernet.
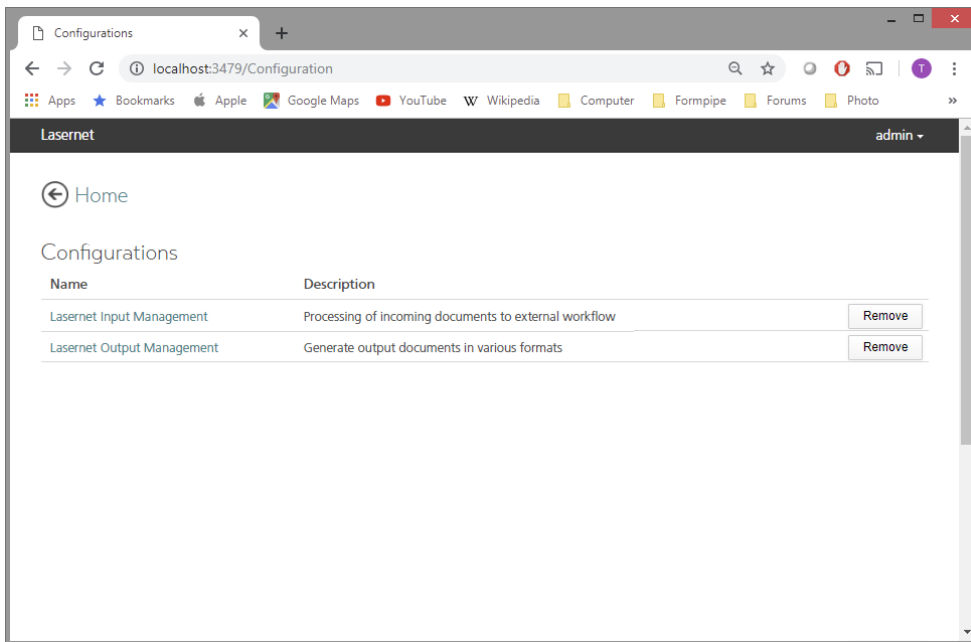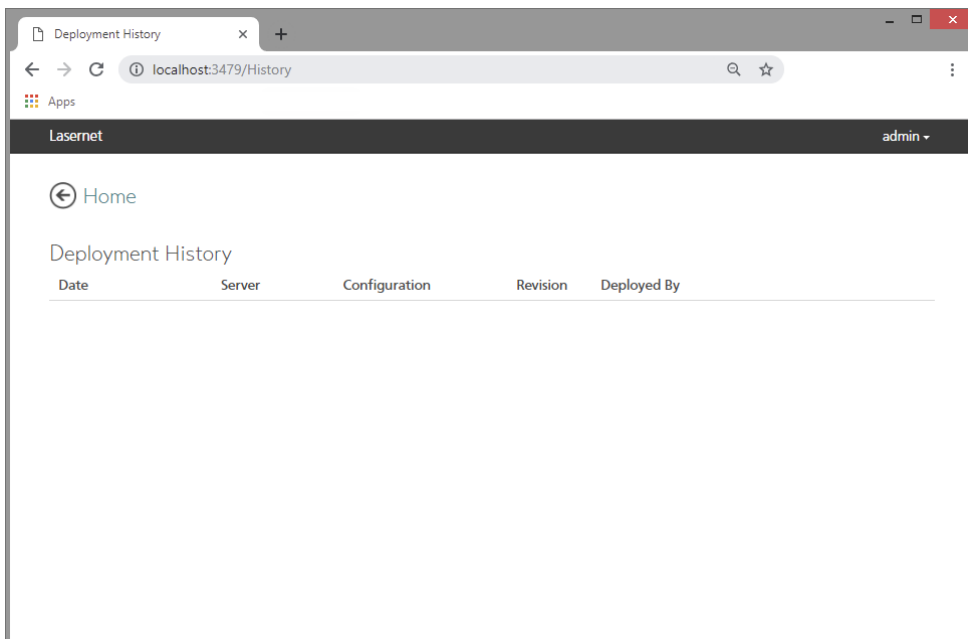
4.4.2 Deployment

The Deployment tool is used to manage and deploy revisions to any configuration. You can also view the revision number, date, check in messages, author and the active running revision.
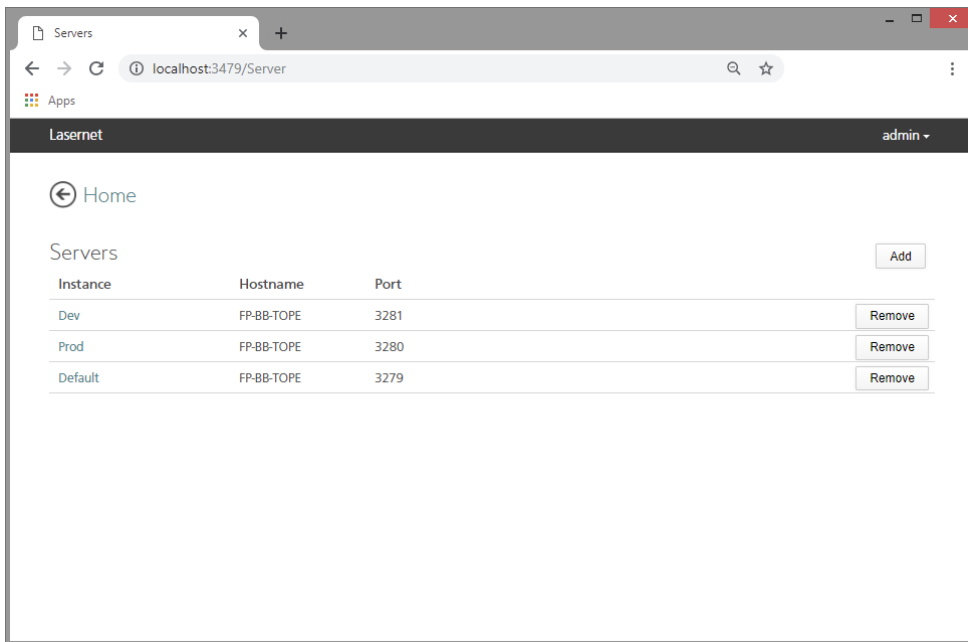
4.4.3   Deployment History

This lets you view the deployment history for servers and configurations.
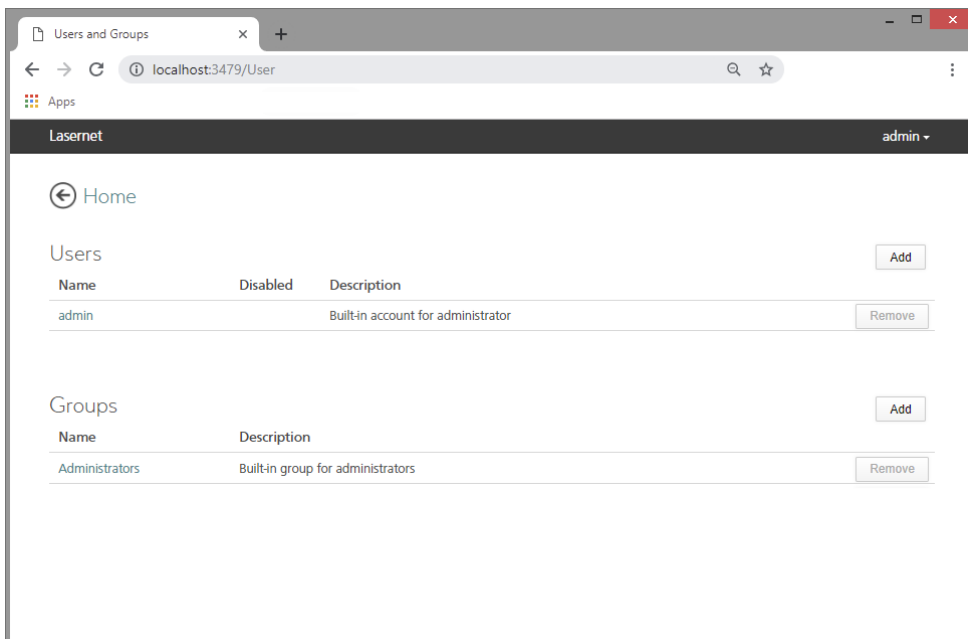

4.4.4   Servers

From here you can manage instance names, server names and port numbers for running servers.
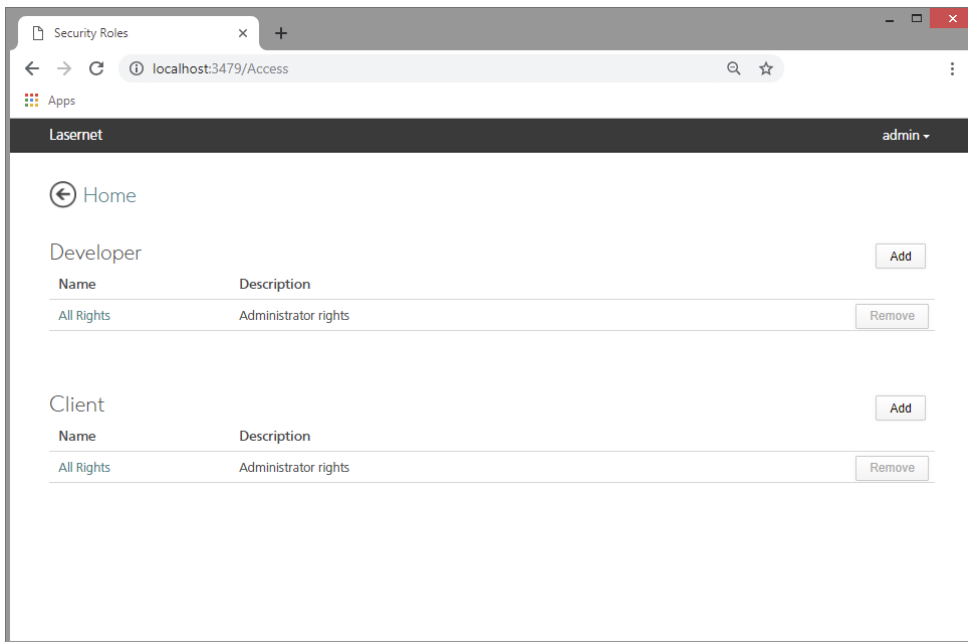
4.4.5 User and groups

This tool allows you to manage local Lasernet users and groups. An alternative to Active Directory users and groups
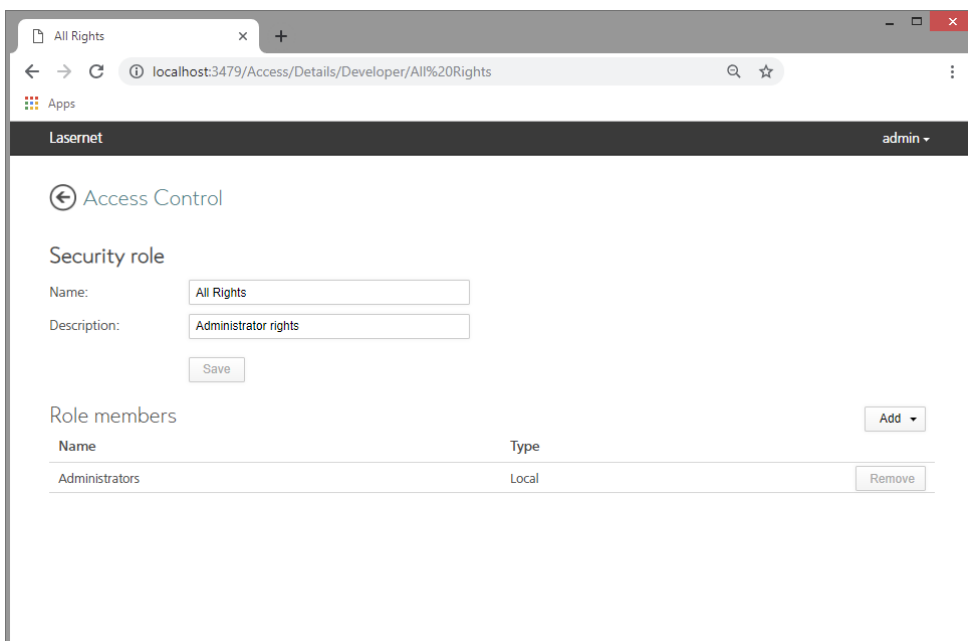

4.4.6 Security Roles for Developer and Client

You can manage access control to products and services provided by Lasernet from here.

You can also set web, developer and client access by adding role members for local/AD users and groups.

4.5 Installing Microsoft XML

In order to use the Lasernet XML Transformer, you must have the Microsoft Core XML Services installed. The minimum version required is version 4 SP 2, but Microsoft XML DOM version 6 is recommended.

The Microsoft Core XML Services (MSXML) 6.0 can be downloaded and installed from:

http://www.microsoft.com/downloads/details.aspx?familyid=993c0bcf-3bcf-4009-be21-27e85e1857b1&displaylang=en

The Microsoft Core XML Services (MSXML) 4.0 SP2 can be downloaded and installed from:

http://www.microsoft.com/downloads/details.aspx?FamilyID=3144b72b-b4f2-46da-b4b6-c5d7485f2b42&DisplayLang=en

If the above links do not work, go to http://www.microsoft.com/downloads/ and search All Downloads for MSXML.

Appendix A
LASERNET MULTI-SERVICE SUPPORT

Lasernet 9 supports the installation of several Lasernet service instances on the same server. Each service instance operates independently of the others, allowing you to run several different configurations on the same machine.

A.1   Concepts

This section describes key concepts used throughout this document. It is necessary to fully understand these concepts in order to successfully set up and operate a multi-service environment.

|	
Service Instance	A unique instance of the Lasernet service executable. Each service instance runs in isolation from other service instances and has its own configuration and execution environment.
	Each individual service instance is identified by the server name and port number (see below).
Server Name	This is the Windows machine name. This name is used by Lasernet Developer and Lasernet Monitor for resolving the IP address of the machine that the Lasernet Service runs on.
Port Number	This is the port number associated with each individual service instance. The port number is used in combination with the server name to uniquely identify each service instance.
Instance Name	The instance name will be displayed along with the associated port number in the Windows Services list. An instance name can also be entered in the Lasernet Developer and Lasernet Monitor to help in identifying the individual service instance.
	Please note that the instance name is for user reference only. From an operational viewpoint, service instances are identified by server name and port number only.

A.2 Installation and Uninstallation

This section describes how to install and uninstall the Lasernet service for use in a Multi-Service environment. Please read the section in full.

A.2.1 Installing additional service instances

The only stipulation is that instance names and port numbers must be unique. Installation of additional service instances are maintained from the Lasernet License Manager.
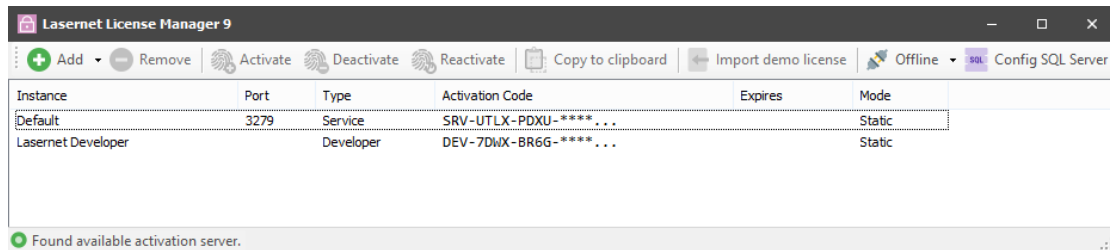
Open the Lasernet License Manager and click the **Add** button in the toolbar. A new window will open, allowing you to name the new instance and assign a port number.
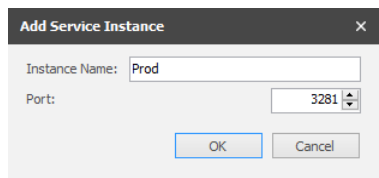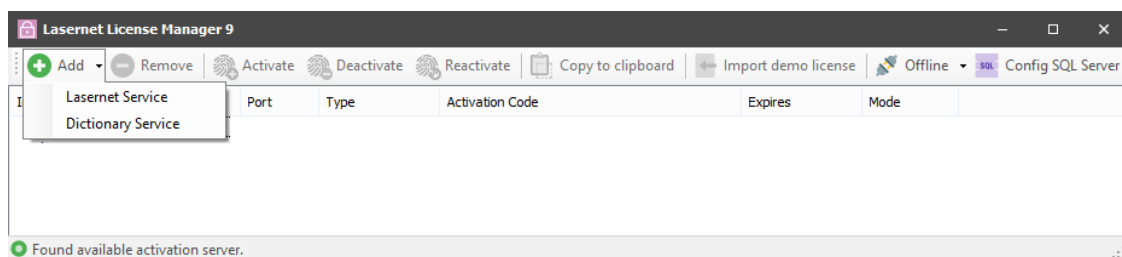

If the name or port number is not unique, the respective field will change to a red background color and the OK button will be disabled. Change the name and/or port number to allow installation of the new instance.

When clicking the OK button, a new Lasernet service instance will be installed and the instance will show up in the instance list of the Lasernet License Manager.
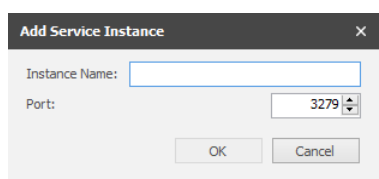
IMPORTANT: Each service instance must be activated separately (see 4.2.2 Add service instance

Lasernet service instances are not added automatically by the installer. To add one manually, start the Lasernet License Manager from the Lasernet Launcher or the program folder and click the 'Add' button, then 'Lasernet Service'.
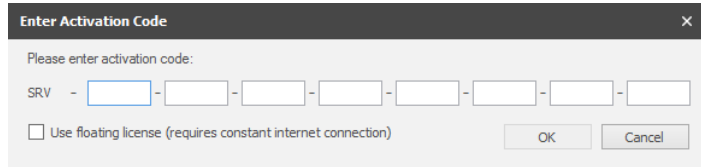

Type an instance name and free port number not already used by other applications running on the same server. We recommend that you name your Lasernet Service instance with its primary function, so that it is easy to identify, for example: "Production", "PreProd", "Development" or a company or location ID.

The port number has to be unique and not used by other Lasernet service instances or applications running on the same server. As default Lasernet will suggest port 3279.

Click OK to accept the settings.

Note: It is also possible to add a license for the Dictionary service at this stage. To learn more about the Dictionary Service you must install the application Lasernet OCR 9 and read the chapter on the Dictionary Service in the OCR Manual.
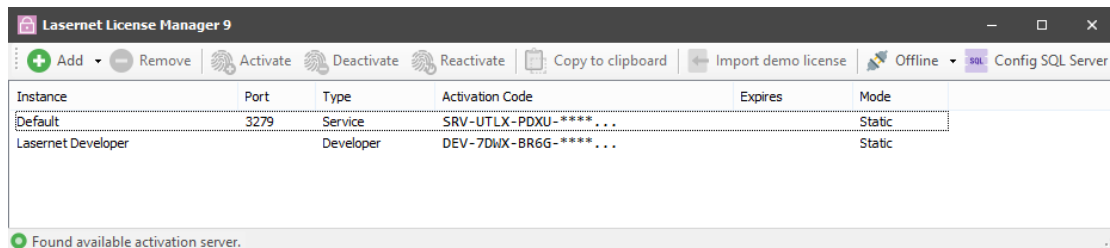

You will now be prompted to insert an activation code. A valid server activation code starts with SRV and contains 8 groups of 4 characters each, e.g. SRV-BMDS-SUGX -ABCD-EFGH-IJKL-MNOP-QRST.

The "Use floating license" option is primarily for cloud based systems that have a constant internet connection. The license is updated and renewed at regular short intervals. Should the server go down and become unable to perform a renewal, the license is then made available for a failover server to use, to ensure minimal disruption in service.
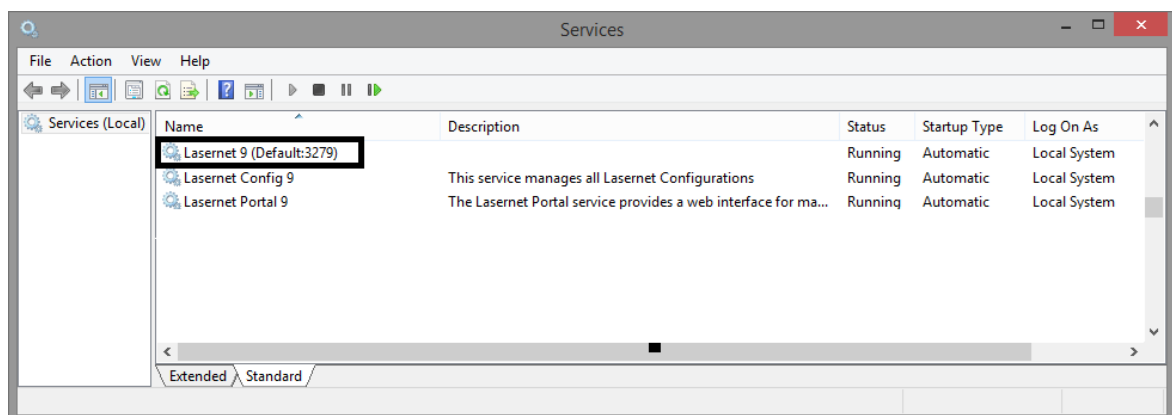
Unless you have properly configured your cloud systems for high availability, we recommend that you use a static license.

If you do not enter a valid activation code and then Cancel out of the window, the service will be installed with the selected instance name and port number, but will not be able to process any jobs.

When the activation code has been accepted you will be able to view the list of activated instances:

and services in Windows:

To protect your activation code, part of it is obscured with asterisks. If you want to see the activation code in full, right click on the instance in the Lasernet License Manager and select "Copy to clipboard".

By default you can add up to five instances of the Lasernet 9 service, each with a unique port number. If support for additional instances is required, contact your reseller for more information.

Online activation). You can use the same server activation code for up to 5 instances on the same server. If you need more service instances on the same machine, please contact your reseller.

Example: If you wanted to run two different service instances — one for production and one for testing. You could name these instances "Production" and "Test", and assign them port numbers 3279 and 3280 respectively.

A.2.2   Uninstalling service instances

To uninstall a Lasernet service instance, open the Lasernet License Manager. If the instance currently has an active license, you must deactivate the license first.

Select the instance in question and click the **Deactivate** button.
Select the service instance you wish to uninstall, and click the **Remove** button.
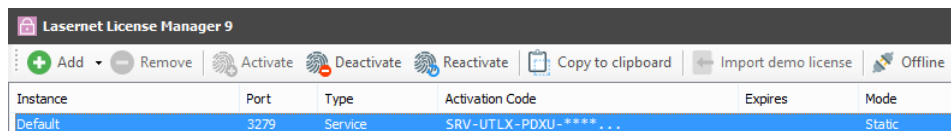
You will have the option of deleting the data files associated with this service instance. This refers to the folders and files stored in the Lasernet data folder for this particular instance. Typically this is the service configuration, database and temporary files.

IMPORTANT: If your configuration uses a different runtime folder, the contents of that folder will have to be removed manually.

A.2.3   Uninstalling Lasernet

Before uninstalling Lasernet, you must deactivate all licenses on your server. This will free your licenses, allowing them to be employed on a different server.

You must also manually remove any installed Lasernet service instances. Only the Lasernet Developer instance will automatically be removed during an uninstallation.

To uninstall Lasernet, navigate to the program folder in the Start menu and click "Uninstall Lasernet 9". Follow the instructions on screen to finalize the uninstall process.

A.2.4   Configuring multiple service instances

Depending on your needs, you can choose to maintain the configuration for several service instances in a single configuration, or you can manage each service instance configuration separately.