

# Laserfiche Rio 10.3: Deployment Guide

*White Paper*

January 2018

**Laserfiche®**

## Table of Contents

How Laserfiche Licensing Works .....	4
Types of Licenses .....	4
Named User Licenses .....	4
WebLink Public Portal Licenses .....	6
Forms User Licensing.....	7
License Interaction in the Repository.....	7
License Allocation and Repository Authentication .....	7
License Allocation and Security .....	8
License Allocation and Auditing.....	9
Laserfiche Directory Server .....	10
Install Laserfiche Directory Server .....	10
Create a Licensing Site.....	11
Firewall and Communication Considerations.....	12
Configure a Master License.....	12
Upgrade from License Manager 8.....	13
License Site Administrators and Directory Server Security.....	14
Create Organizations .....	14
Create Groups.....	14
Create Global Laserfiche Users and Register Directory Named Users.....	15
Register Devices .....	17
Register Your Laserfiche Servers.....	17
Register Your Other Applications .....	18
Products that Do Not Require Registration.....	18
Products that Can be Registered During Installation.....	19
Products that Must Be Registered Prior to Installation .....	19
Register Repository Named Users.....	19
Active Directory Group Synchronization.....	21
Configure Users for WebLink Public Portal Access .....	25
Installing the Laserfiche Server.....	26
Install the Laserfiche Server .....	26
Upgrade the Laserfiche Server.....	26

Create, Register or Migrate a Repository .....	26
Grant Repository Access to Named User Windows Accounts.....	27
Other Considerations .....	28
Installing Other Products .....	29
Laserfiche Windows Client and Snapshot .....	29
Laserfiche Web Client .....	29
Workflow.....	29
Laserfiche App .....	30
Laserfiche Administration Consoles .....	30
Laserfiche Discussions.....	30
Web Accelerator .....	30
Laserfiche Distributed Computing Cluster .....	31
Other Applications.....	31
Forms .....	31
Laserfiche Connector.....	31
Quick Fields.....	32
WebLink.....	32
Import Agent.....	33
ScanConnect .....	33
Laserfiche SDK .....	33
Plus .....	33
Agenda Manager .....	33
Laserfiche Rio Maintenance .....	35
Back Up Your Licensing Database.....	35
Update a Master License .....	35
Update an Application License .....	35
Move Your License Server and Database .....	36

Laserfiche Rio is an enterprise edition of Laserfiche that combines the Laserfiche Server's content management with Laserfiche Workflow's business process management. Laserfiche Rio includes unlimited Laserfiche Servers and repositories at no additional cost. Laserfiche Rio gives you powerful, flexible tools for working with your information at large, multi-server sites where many users will be accessing your data.

Laserfiche Rio's named user licensing ensures that users who should have access will always be able to log into the repository without fear of the site's licenses being taken up, allows you to set up computer kiosks for more general access, and provides new flexibility for sites that use WebLink for public portal access.

Laserfiche Rio includes the Laserfiche Server, the web and Windows clients, the Laserfiche app, Workflow, Discussions, Advanced Audit Trail, Snapshot, the desktop and Web Administration Consoles, Federated Search, Web Accelerator, and Distributed Computing Cluster. In addition, Laserfiche Rio includes support for unlimited Laserfiche Server installations and unlimited repositories.

Laserfiche Rio also includes Laserfiche Directory Server, a web-based administrative tool through which you will manage your user and application licenses.

Deploying Laserfiche Rio has several steps:

- Install Laserfiche Directory Server.
- Create a licensing site.
- Activate your master license.
- Configure security to determine who can perform which actions on your licensing site.
- Optionally, create organizations and groups to help you organize your users and departments.
- Create any global Laserfiche users that you want to allocate licenses to.
- Allocate named user licenses to directory named users (Laserfiche users, Windows Active Directory users, or Novell eDirectory users).
- Optionally, set up Active Directory group synchronization to automatically monitor changes to Windows groups and allocate named user licenses accordingly.
- Allocate device licenses.
- Install and register the Laserfiche Server.
- Grant Trusted access to directory named users on a per-repository basis.

- Optionally, create any repository users you want to use, and grant them repository named user licenses.
- Install and register other Laserfiche applications.

Each of these steps will be explained in detail in this deployment guide.

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**Important:** This guide will refer to both the Laserfiche Directory Server and the Laserfiche Server, and to both the Laserfiche Directory Server Web Administration Console and the Laserfiche Administration Console. It is important to note that these are different applications. When you are instructed to perform a task, be sure to read carefully to determine which server the action should be performed on.

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## How Laserfiche Licensing Works

Laserfiche products must be properly licensed both to install and to run. This section discusses licensing for products that are included with Laserfiche Rio, and for other products you may license.

Licensing with Laserfiche Rio relies on a *master license*—a file containing the licensing information for all products—that determines how many named user and public portal licenses you have. You will also use this master license to generate individual installation licenses for the products you are licensed for. In most cases, you will obtain your master license using an activation key, which allows you to immediately retrieve the most up-to-date version of the license from Laserfiche.

For information about generating specific product licenses, see [Registering Your Laserfiche Servers](#) and [Register Your Other Applications](#).

## Types of Licenses

There are three basic types of licenses that can be used with Laserfiche Rio: named user licenses, public portal licenses, and Forms authenticated participant licenses. Named user licenses reserve a connection for a particular user or device, and can be used with any Laserfiche products. Public portal licenses are used only with Laserfiche WebLink, and allow you to provide public read-only access to your repository.

### Named User Licenses

Named user licenses are the most common way for Laserfiche users to access the Laserfiche repository. Each named user license is allocated to a single user or device. The named user license is reserved for this user or device—they will always have access to the repository.

Each named user license may be associated with only one global Laserfiche user, Windows account, Novell eDirectory account, repository user, or device.

Named user licenses cannot be associated with groups; they must be associated with individual users, and cannot be shared.

A single named user license can support up to four simultaneous connections. This means that, for example, a single user could have the Laserfiche Windows client, Quick Fields, Snapshot, and an integration script running at the same time, using a single named user license.

Named user licenses may be either full or retrieval licenses. A full license permits a user to both view and modify information in the repository. A retrieval license only permits a user to view information in the repository; a user with a retrieval license cannot make changes to repository contents or add new contents to the repository. All three types of named user licenses, below, may be either full or retrieval.

There are three types of named user licenses:

A **Directory Named User** license is assigned to a Laserfiche user, Active Directory user, or Novell eDirectory user. It can be used to connect to any Laserfiche Server or repository at your site. For example, if the Laserfiche user JohnSmith has been allocated a Directory Named User license and you have two Laserfiche Servers, each of which have two repositories, the user can use that single license to log in to any of those repositories on any of the Laserfiche Servers. You do not need to allocate Directory Named User licenses by Server; one Directory Named User license can be used with any Laserfiche Server at your site.

A **Repository Named User** license is assigned to a single repository user. A Repository Named User license must be allocated to a specific Laserfiche Server, and then must be assigned to a single user in a single repository. It is not shared between repositories, because the user object to which it is assigned only exists in one repository. For example, if the repository user JDoe exists in two repositories, and you want that user to be able to log in to both, you will need to allocate two Repository Named User licenses, one for each repository. This is true even if they are both on the same Laserfiche Server. Because they are not as flexible as directory named users and named devices, and because they require more administrative work to maintain, we do not recommend using repository named users in most cases.

A **Named Device** license is tied to a particular computer; any user may log in from that computer, but the license will not be available when accessing the repository from any other computer. Like Directory Named User licenses, Named Devices are not specific to a single repository. For example, if you have a scan station that will be used by multiple scanner operators to scan into two different repositories on two different Laserfiche Servers, you can allocate one Named Device license to that scan station for access to both. Note that Named Device licenses cannot be used with Laserfiche web applications. In addition, retrieval licenses cannot be allocated to named devices.

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**Tip:** Because they offer the most flexibility, can be used with multiple repositories across your installation, and do not need to be reserved for specific Laserfiche Servers, we strongly recommend using Directory Named Users or Named Devices whenever possible. Repository Named Users should only be used when it is not possible to use a directory account or device license.

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Full and retrieval licenses make up two distinct license pools. Once you have allocated all your full licenses, you cannot allocate any more even if you still have retrieval licenses to allocate, and vice versa. However, within those license pools, the licenses can be allocated however you like. You can allocate a full named user license to a directory named user, a repository named user, or a named device. If you have allocated a full license to a directory named user, you can later remove it from that user and allocate it to another user or device. The same is true for retrieval licenses (with the exception that retrieval licenses cannot be allocated to named devices).

### **WebLink Public Portal Licenses**

A public portal license is a license type that allows public users to access the Laserfiche Server through Laserfiche WebLink. Because a WebLink installation may be accessed by the public, it is not feasible to allocate named user licenses to everyone who will need to access the repository through WebLink. With a public portal license, you can make your repository available for public access using WebLink.

Public portal licensed connections are read-only, meaning they can be used to view documents but not modify them. Public portal licenses may only be used with WebLink; they are not available for other applications. They are linked to the specific Laserfiche Server with which they will be used.

Public portal licenses vary depending on how many connections to WebLink they allow. Some allow access to a specific number of connections; others allow unlimited connections, although large numbers of connections will eventually affect server performance. You can allocate your available public portal licenses to your Laserfiche Servers during Server registration. If you are using unlimited public portal licenses, you must allocate one public portal license for each CPU on the Laserfiche Server computer that WebLink will connect to. For instance, a Laserfiche Server with two processors would need to be allocated a dual-CPU public portal license (or two single-CPU public portal licenses) for unlimited access. (Note that a dual-core processor does not count as two processors.) Because the WebLink public portal is associated with a Laserfiche Server and not with the WebLink installation or license, more than one WebLink installation can be used to access the same Server and use the same public portal license.

Public portal licenses are always read-only.

## Forms User Licensing

There are three ways that a user can access Laserfiche Forms.

**Full named users** can log in using the same user account they use to log in to a Laserfiche repository. These users have full access to Forms, although you can use security settings to restrict their access. Retrieval named users cannot use their named user accounts to log in to Forms.

**Authenticated participant users** are allocated per Forms instance when the instance is registered, and can log in to Forms to start process instances and perform user tasks (again, you can use security settings to further restrict their access). Authenticated participant users cannot create or administer business processes. Since participant users are only used with Laserfiche Forms, they are assigned to individuals on the Forms System Security page for your Forms installation.

If your Forms instance is a **Forms Portal**, public anonymous users can submit publicly published forms. If you are licensed for a limited number of Forms Portals, you should specify whether a given Forms instance should be allocated a Forms Portal license when you register it. If you are licensed for Enterprise Forms Portal, all of your Forms instances can be used as Forms Portals.

For more information, see [Installing Laserfiche Forms](#), [Forms Licensing](#), and [Forms Security](#) in the Laserfiche Forms help files.

## License Interaction in the Repository

For the most part, license allocation has no effect on other settings in your Laserfiche repository. Allocating a license to a user does not grant them any rights to the repository, nor does it affect their auditing or other settings. By itself, license allocation does not even grant them the rights to log in. It simply indicates that they are capable of connecting to a Laserfiche Server.

This section contains more information on the interaction between license allocation and repository settings.

## License Allocation and Repository Authentication

In order for a user to log in to the repository, they must have both a valid license and a user account in the repository that has been granted trusted access. The license may be a named user license allocated to that user, a computer with a named device license that can be used to log in, or access to a WebLink installation that has an associated public portal license. The user account may be a Laserfiche user, Windows user, or Novell eDirectory user that has been granted Trusted access to the repository, or a repository user created in that repository.

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**Note:** A WebLink installation configured to automatically log users in may appear to log them in without a user account.

However, users who are automatically logged in are still accessing the repository as a particular account, they are simply not prompted to specify the account name. See the [Automatically Log In](#) topic in the WebLink Administration and Configuration Guide for more information.

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Because repository authentication is not the same thing as license allocation, you can specify which users should be able to log in to which repositories. Simply allocating a named user license does not bypass the authentication step. A Laserfiche user, Windows domain user, or Novell eDirectory user must have Trusted authentication (either on their own account, or inherited from one of their groups) in order to log in. Without that authentication, they will not be allowed to log in to the repository. See [Windows and LDAP Authentication](#) for more information.

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**Example:** Joe has a Windows domain account (DOMAIN\Joe) that has been granted a named user license. His company has three repositories: Sales, Account Information, and HR. Joe should be able to access the Sales and Account Information repositories, but he should not be able to log in to the HR repository at all. His administrator verifies that he has inherited Trusted authentication to the Sales repository because of his membership in the DOMAIN\Sales domain group, and that he has been granted Trusted authentication to the Account Information repository. The combination of his Trusted authentication status and his named user license will allow him to log in to both of those repositories. However, since he has not been granted Trusted access to the HR repository, he cannot log in to that repository at all, even though he has a named user license.

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Because repository users are specific to each repository, you can simply remove or disable a user who should not be able to log in. This will not affect other repositories. (If the repository user only exists in one repository, they will automatically be unable to log in to other repositories.)

## License Allocation and Security

Regardless of the type of license used to log in—named user, named device, or public portal—users log in as a particular trustee, as mentioned above. Laserfiche security can be configured for those users and the groups to which they belong as usual. License allocation has no effect on security settings.

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**Important:** Even users who do not have a named user license allocated to them specifically will still log in as a particular user, and their security settings depend on their user settings, not their license. For example, if two users with different security access the repository using the same named device, they will have

different access to information in Laserfiche. Similarly, if two users with different security both log in to WebLink using a public portal license, they will have different access to entries.

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### License Allocation and Auditing

As with security, auditing is configured and reported by trustee, not by license. Thus, if two different users log in using the same named device but as different trustees, they will be audited separately. Similarly, if two different users log in to WebLink using the same public portal license, they will be audited separately.

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**Note:** If you have configured WebLink to automatically log public users in as a particular trustee, they will all be audited collectively. However, this is not because they are using a public portal license. Instead, they are audited collectively because they are all logging in using the same trustee.

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# Laserfiche Directory Server

The first step in deploying your Laserfiche Rio installation is installing Laserfiche Directory Server. Directory Server allows you to load a master license, specify which Windows domain account users should have named user license access to your repository, and manage your application licenses. It is important to install and configure Directory Server before installing your other Laserfiche products. Without Directory Server, you will not be able to register your other applications during installation.

There are several steps to configuring Laserfiche Directory Server and generating licenses:

- Install Laserfiche Directory Server.
- Create a licensing site.
- Activate your master license.
- Configure security to determine who can perform which actions on your license site.
- Optionally, create organizations and groups to help you organize your users and departments.
- Create global Laserfiche users and allocate named user licenses to them.
- Allocate named user licenses to global Laserfiche accounts, Windows domain accounts or Novell eDirectory accounts.
- Optionally, set up Active Directory group synchronization to automatically monitor changes to Windows groups and allocate named user licenses accordingly.
- Allocate device licenses.

## Install Laserfiche Directory Server

Laserfiche Directory Server is a web application; you can install it once and then log in to it from any web browser.

Before you install Directory Server, you should ensure that you have all required prerequisites installed on the Directory Server computer. See [Installing Laserfiche Directory Server](#) in the documentation for more information.

### To install Laserfiche Directory Server

1. Use the autorun or double-click Setup.exe to launch the installation.

2. In the Language Selection, select the desired language display for the installation.
3. On the **Welcome to the Laserfiche Directory Server Setup Wizard** step, click **Next** to continue.
4. On the **License Agreement** step, click **I accept the terms in the License Agreement** after reading the license agreement and click **Next** to accept the agreement.
5. On the **Custom Setup** step, choose which components to install. In the **Install directory** option, specify a different installation path if necessary and click **Next** to continue.
6. On the **SSL Certificate Options** step, select the appropriate certificate from the Local Computer's Personal certificate store.

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**Note:** Laserfiche Directory Server requires secure HTTP communication. If you bypass this step, you must still configure a valid SSL binding on your IIS website hosting LFDS.

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7. On the **Laserfiche Service Settings** step, specify either a local machine account or a valid domain user account for running the Laserfiche Directory Server service.
8. **Optional:** Select the **Create Windows Firewall exception** option for the installation to create a Windows Firewall exception for the ports used by the Laserfiche Directory Server (if you do not do this, you will need to configure the ports manually).
9. On the **Ready to Install** step, click **Install** to begin the installation.
10. On the final step, click **Finish** to close the wizard.

The installation creates two IIS applications:

- **LFDS:** The Laserfiche Directory Server administration site.
- **LFDSSTS:** The Laserfiche Directory Server Security Token Service and Identity Provider site is used to provide authentication functionality for Laserfiche Discussions.

After the installation process, browse to the Laserfiche Directory Server Web Administration Console. By default, the site is available at <https://MachineName/LFDS>.

## Create a Licensing Site

Laserfiche Directory Server stores data in a SQL database. When you access the Directory Server management website for the first time, you will be prompted to specify SQL Server configuration information:

1. A display name for this new licensing site instance.

2. SQL Server host/instance name.
3. SQL database name (you can attach an existing database or allow Directory Server to create a new one).
4. Login information for SQL Server. you can use Windows authentication with the service account running the Directory Server service, or specify an appropriate SQL Server login.

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**Note:** By default, Directory Server runs as Network Service. In default installations of Microsoft SQL Server, Network Service will not have sufficient rights to create a database. If you are specifying the Windows authentication option, ensure that Network Service has sufficient permissions, or change the Directory Server service account to a different user.

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## Firewall and Communication Considerations

By default, Directory Server communicates over TCP port 5048, with SSL access available on TCP port 5049.

The Directory Server installation will automatically attempt to add a Windows firewall exception for the Directory Server service and the above ports. If you still cannot connect, you may need to manually configure the firewall such that the Directory Server can communicate using these ports.

You can also customize the ports used by Laserfiche Directory Server. See [Configuring the Directory Server Listening Ports](#) for more information.

## Configure a Master License

The master license determines the features of your Laserfiche system, including number of users, server features, and which applications you are authorized to install. The Laserfiche Directory Server reads the master license and imports the license information into the licensing site.

When you create a licensing site for the first time, you will be prompted for the master license. You can either retrieve master license information from Laserfiche using an activation key, or provide a license file. In general, it is best to use an activation key to download your license, as that will ensure that you have the most up-to-date version of your license available.

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**Note:** If you have an existing License Manager 8 licensing database, you can import information from the existing database into a Laserfiche Directory Server licensing site. See [Upgrade from License Manager 8](#), below, for more information.

**Note:** If you have an updated master license, you can add it to an existing licensing database to update the licensing information. For instance, if you add a new Server feature, or license a new

product, you will need to add your updated master license or re-activate manually.

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### To configure a master license

1. In the Directory Server Web Administration Console, click the **Settings** tab.
2. Specify how you would like to add your license.
  - To retrieve the master license from Laserfiche, select **Activation key** and enter your activation key in the field.
  - If you have a copy of the master license file on hand, you can use that instead. Select **Import master license file**.
  - If you are [upgrading from License Manager 8](#), you can import information from the existing licensing database into the Laserfiche Directory Server licensing site.
3. Click **OK** to use the license.

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**Note:** If you have trouble retrieving your master license from Laserfiche, contact Laserfiche Support for assistance obtaining your master license.

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### Upgrade from License Manager 8

If you previously used License Manager 8 to manage your Laserfiche Rio licenses, you can import your license database from License Manager to retain your license configuration. If you are installing Directory Server on the same computer hosting License Manager 8, the installation process automatically detects the existing installation of License Manager and upgrades the installation to Directory Server.

After [creating a new licensing site](#), you will have the option to import existing information from your License Manager 8 licensing database into the new Directory Server licensing site.

If you are installing Laserfiche Directory Server and have never used License Manager, you can skip this step. See [Configure a Master License](#) for more information.

1. Load the Directory Server Web Administration Console and when prompted that there is no master license associated with the site, click Activate.
2. Select the **import data from a License Manager 8 licensing database** option and browse to the appropriate DB file. By default, License Manager licensing databases are stored at **C:\ProgramData\LicenseManager**.

3. Click **OK** to start the import process.
4. After the import process finishes, click on the **Settings** tab.
5. Click the **Renew master license** option.
6. Use the **Renew** option to renew your master license for version 10.

## License Site Administrators and Directory Server Security

The installation process automatically creates the **Laserfiche Directory Service Administrators** local group and adds the account that runs the installation to the group. Members of this group have full access to the Laserfiche Directory Server Web Administration Console. Members of the Local Administrators group on the computer hosting Laserfiche Directory Server also have full access.

Laserfiche Directory Server also provides additional security settings that allow more granular security. For information about the specific security settings available, see [Controlling Access to a Licensing Site](#) in the documentation.

## Create Organizations

Creating organizations is an optional step that allows you to allocate blocks of licenses to certain organizations at your site. For instance, you might want to reserve a certain number of licenses for each department at your company. Organizations also allow you to use security in a more granular fashion, as you can grant users the right to manage licenses within their organization but not in other organizations. Organizations are optional; you do not need to create organizations in order to allocate licenses.

- Use the **+Organization** button to create an organization in the licensing site. Organizations support a hierarchical structure; create sub-organizations under a parent organization.

You can also select an organization from the list to view additional properties about the organization.

## Create Groups

Groups allow you to collect groups of users for easier administration. Groups are optional; you do not need to create groups in order to allocate licenses.

- Use the **+Group** button to create a group in the licensing site.

Select a group from the list to view additional properties about the group.

## Create Global Laserfiche Users and Register Directory Named Users

Registering named users, by associating their global Laserfiche account, Windows account, or Novell eDirectory account with a named user license, allows you to give those directory accounts access to specific Laserfiche repositories. This will reserve a license for the user and, once they have been granted Trusted status for the repository, will allow them to log in to the repository.

You can create new global Laserfiche user accounts and register them to Directory Server at the same time. Windows Active Directory users and LDAP users must already exist on their respective directory services before they can be added. You can also create global Laserfiche users in bulk by importing a CSV file.

Directory named users are not Laserfiche Server- or repository-specific. If a directory user has been granted a named user license, they can use that license to log in to any Laserfiche Server or repository on the system—as long as they have appropriate rights to do so. Directory accounts are the most efficient way to administer those users who will be regularly logging in to more than one Laserfiche Server or repository.

When adding directory groups, each member of that group will be added as an individual named user. Directory Server will not dynamically manage this group; if users are added to or removed from the group, you will need to add or remove them manually. (If you are using Windows domain groups, you can configure Directory Server to automatically add and remove group members. Create [Active Directory synchronization rules](#) for select identity providers.)

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**Note:** Registering a user in Directory Server does not automatically add that account to your Laserfiche repository. If a directory user has been registered in a Directory Server licensing site, but has not been granted access to the repository, they will not be able to log in. You will need to also grant that user access to your Laserfiche repository in the Laserfiche Administration Console. See the Laserfiche Administration Guide for more information.

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### Creating and Registering Global Laserfiche Users

1. In the Accounts tab, click the +User button and select **Laserfiche user**.
2. On the Create User page, specify a **User name**.
3. In the **License** option, specify the license type you want to allocate: **Full license** or **Retrieval license**. To create the user without allocating a license, choose **Select license**.
4. Configure any of the following optional information that you want to include:

- Organization
  - Group
  - First name and Last name
  - Display name
  - Email
  - Password
5. Click **Finish**.

### Registering Windows Active Directory or Novell eDirectory Named Users

1. In the Accounts tab, click the **+User** button and select between registering Windows Active Directory user accounts or Novell eDirectory user accounts.
  2. On the **Create User** page, click **Register directory user(s)** to search for users or groups in your domain.
  3. Configure any of the following optional information that you want to include:
    - Organization
    - Group
2. Click **Finish**.

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**Important:** When processing Active Directory Group Synchronization rules, Directory Server first clears out all non-exempt named users. Registered named users that are marked as being exempt from synchronization rules and registered named devices are not affected.

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### Creating Global Laserfiche Users in Bulk Using a CSV File

Administrators can predefine a list of Laserfiche user accounts in a comma separated values (CSV) file for import into Laserfiche Directory Server.

1. In the **Accounts** tab, click the **+User** button and select **Laserfiche user**.
2. Click the **Import user list** button and browse to your CSV file.

The import process supports the following column headers in your CSV file:

Column	Description
Name	Specify the account name. This value is required to create the account.
DisplayName	Affects the default display in the Directory Server administration website.
FirstName	Specify the first name of the user account.
LastName	Specify the last name of the user account.
Password	The password associated with the account.

Email	Email address.
License	<p>Specify a license to reserve for the account. Valid values are:</p> <ul style="list-style-type: none"> <li>• Full license</li> <li>• Retrieval license</li> <li>• Restricted license</li> </ul> <p>This value can also be left blank, in which case the user will be created but will not be granted a license.</p>
FormParticipant	Specify whether to reserve a Forms authenticated participant license for the user account.

## Register Devices

You can assign a license to a specific computer, instead of to a specific directory account. Any user logging in from that computer using a valid Laserfiche account will be able to connect to the Laserfiche server. A single device license can support up to eight simultaneous connections. You can register a single device multiple times, to allow you to add multiple devices with the same Host ID. Take care when adding named devices not to add the same device more than once accidentally, as this will reduce the number of device licenses available to you.

- Click **+Device** to assign a license to a computer

## Register Your Laserfiche Servers

There are two ways to register a Laserfiche Server. You can register the Laserfiche Server during installation, by specifying the Laserfiche Directory Server and database you want to register it with. You can also register the Laserfiche Server in advance through Directory Server, and then provide the resulting license file during Laserfiche Server installation. The two processes have the same result, and you can use whichever you prefer, or combine the two.

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**Note:** The ability to register the Laserfiche Server directly during its installation was introduced with Laserfiche 8.2. If you are installing a prior version of the Laserfiche Server, you must manually register it in Laserfiche Directory Server.

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If you will be installing more than one Laserfiche Server, you do not need to register and install all of them at one time. However, since Laserfiche Server licenses are specific to the computer the registration was performed for, you cannot use the licenses interchangeably. You must register each Server separately, whether through the Laserfiche Server installation or through Directory Server.

To register the Laserfiche Server during its installation, see [Installing the Laserfiche Server](#) in the Laserfiche Administration Guide for complete instructions. If you want to register the Laserfiche Server in advance through Laserfiche Directory Server, see [Managing Application Licenses](#) in the documentation. When registering in Directory Server, you will generate a license file that can be used during installation later.

When you register your Laserfiche Server, whether through the installation or in Directory Server, you will need to allocate any repository named users or public portal licenses. You can also modify the settings for notifications sent between Directory Server and the Laserfiche Server.

## Register Your Other Applications

Like the Laserfiche Server, most applications can be registered directly from the installation as well as from Laserfiche Directory Server. Some applications must be registered in Directory Server first, however. In general, instructions for registering during installation can be found in the product help files, and instructions for registering in Laserfiche Directory Server can be found in [Managing Application Licenses](#) in the Directory Server help files. For more information, see [Installing Other Products](#), below.

## Products that Do Not Require Registration

Workflow, the Laserfiche Windows client, desktop Administration Console, and Web Administration Console, along with the other components included in the Laserfiche Windows client, do not need to be registered during installation, although they must connect to a registered Laserfiche Server to function.

Laserfiche Snapshot and the Email Plug-in are installed with the Windows client, but licensed through the Laserfiche Server. This means that they can be installed anywhere and will not prompt you for a license, but can only be used with repositories hosted by Laserfiche Servers that are licensed for them. Laserfiche Rio Servers all include licensing for Laserfiche Snapshot and the Email Plug-in.

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**Note:** The Windows client and administration consoles do require a license for installation of version 8.2 and earlier, and Workflow requires a license for installation of version 8.3 and earlier.

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## Products that Can be Registered During Installation

Like the Laserfiche Server, the following products allow you to register directly during installation: Laserfiche web client 8.1 and later, Forms 9.0.1 and later, Import Agent 8.1.1 and later, Quick Fields 10.0 and later, WebLink 9.0 and later SDK 9.0 and later, ScanConnect 8.3 and later, WebLink 9.0 and later, and all versions of Laserfiche Connector, Discussions, Federated Search, and Distributed Computing Cluster. You can also register these products in Directory Server before installation and then provide the resulting license file during installation, if you prefer. See the relevant product help files for information on registering during installation.

## Products that Must Be Registered Prior to Installation

Other products require you to register each instance of the application that you will be installing in Directory Server before you can install them. These products include Laserfiche Plus, Agenda Manager, and previous versions of the products listed above. For instructions, see [Managing Application Licenses](#) in the documentation.

## Register Repository Named Users

A repository named user is a named user license that is linked to a single Laserfiche trustee rather than to a Windows domain or Novell eDirectory account. This allows you to take advantage of Laserfiche Rio named users even if your users will not all have accounts on your directory service. For instance, you might want to grant access to your repository to someone who isn't a member of your organization—such as a contractor—and who therefore doesn't have an account on your domain.

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**Important:** Because they are not as flexible as directory named users and named devices, and because they require more administrative work to maintain, we do not recommend using repository named users. If you do need to use repository named users, we recommend limiting them only to users who do not or cannot use Windows Accounts or Novell eDirectory accounts.

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Each Laserfiche user that should have a named user license reserved for them must be allocated a repository named user license. As you add trustees to the repository, you can allocate repository named user licenses to those trustees. You can also allocate repository named user licenses to existing Laserfiche users. This is done in the Laserfiche Administration Console.

Before you will be able to assign named user licenses to Laserfiche users, you must allocate the licenses as repository named users to the Laserfiche Server on which they will be used. See [Register Your Laserfiche Server](#) for more information. You must allocate as many licenses as you will be using; you will not be able to assign more Laserfiche named users than you have allocated licenses.

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**Important:** Licenses allocated as repository named users for a specific Laserfiche Server cannot be used by directory named users or device licenses, or by repository named users on other Laserfiche Servers. They will be reserved solely for repository named users for that specific Laserfiche Server. You should not allocate more repository named user licenses than necessary. If you allocate too many licenses, you can update your Laserfiche Server license to free those licenses and make them available for use by other named user types.

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Repository named users are repository-specific. When you add a user to the repository named user list, the user will be able to log in to that repository only. If you have two repositories on a Laserfiche Server, and want to allow a repository user to log in to both, you would need to allocate two licenses to that Server—one for the user in each repository. If you want to allow a user to log in to multiple repositories using only one named user license, consider setting them up as a directory user.

#### **To allocate a named user license to a new Laserfiche user**

1. Open the Laserfiche Administration Console or the web client's management page and log in as a user with the Manage Trustees privilege. (You must also be logged in as a [System Manager](#).) If you are using the Administration Console, expand your Laserfiche Server and repository.
2. Perform one of the following:
  - a. In the desktop Laserfiche Administration Console, expand the **Users and Groups** node and select the **Repository Users** node.
  - b. In the web client's management page, select **Users**.
3. In the desktop Administration Console, right-click or open the **Action** menu and select **New User**. In the Web Administration Console, click the **Add** button and select **Repository**.
4. Configure the user. See the [Security](#) chapter of the Laserfiche Administration Guide for more information about the options available when adding a user.
5. Before saving the trustee, ensure that the **Repository Named User** option is set to **Full** (to grant the user a full named user license) or **Retrieval** (to grant the user a retrieval named user license). Selecting **False** or **None** will remove the user from the named user list.

## To add an existing user to the Laserfiche Named Users list

1. Open the Laserfiche Administration Console or the web client's management page and log in as a user with the Manage Trustees privilege. (You must also be logged in as a [System Manager](#).) If you are using the Administration Console, expand your Laserfiche Server and repository.
2. Perform one of the following:
  - a. In the desktop Laserfiche Administration Console, expand the **Users and Groups** node and select the **Repository Users** node.
  - b. In the web client's management page, select **Users**.
3. Select the user to whom you want to allocate a license and open its properties.
4. Ensure that the **Repository Named User** option is set to **Full** (to grant the user a full named user license) or **Retrieval** (to grant the user a retrieval named user license). Selecting **False** or **None** will remove the user from the named user list.
5. Save your changes.

## Active Directory Group Synchronization

If you use Windows domain accounts for your named user handling, you can take advantage of Active Directory group synchronization in Laserfiche Directory Server to automatically handle allocating and removing licenses based on group membership. With Active Directory group synchronization, the Laserfiche Directory Server will poll your Active Directory server for changes to membership of the groups you specify, and then will automatically grant or remove licenses according to your rules.

Active Directory group synchronization rules have two parts: a Windows group that will be monitored, and an action that will be performed on members of the group. The group can be any group in your domain. The action will be one of the following: assign a full license, assign a retrieval license, or remove licenses.

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**Example:** A rule is configured for the group Managers, with the action **Assign full license**. When the synchronization process runs, the group will be polled, and each group member will be allocated a full license, if they do not have one already.

---

You will need to set up an Active Directory group synchronization rule for each Windows group you want to monitor. This means that you can monitor several groups and handle them differently. For example, you might want to always allocate full licenses to members of the Scanner Operators group, and always allocate retrieval licenses to your Remote Access group. You could do so using two different rules.

Rules are performed in the order that they are listed in Directory Server. This order makes a difference in the final result: if a rule removing a license from a user is followed by a rule allocating a license to the user, the user will have a license. If a rule allocating a license is followed by a rule removing the license, the user will not have a license. Similarly, since a user may only have one type of license at one time, if a rule allocating a full license to a user is followed by a rule allocating a retrieval license, the user will have a retrieval license at the end. Therefore you should plan your synchronization rules to ensure that they are processed in the proper order.

---

**Example:** An installation has four Active Directory synchronization rules. The first allocates full licenses to all members of the Employees group. The second allocates retrieval licenses to the Remote Access group (a subset of the Employees group). The third removes access from the Administration group (also a subset of the Employees group). The fourth allocates full licenses to the Managers group (a subset of the Administration group).

Bob is a member of the Employees group, but is not a member of any of the other groups. He is allocated a full license, and is unaffected by the other rules.

Sally is a member of the Remote Access group. She is allocated a full license by the first rule, but then that license is replaced with a retrieval license by the second rule. The other two rules do not affect her. In the end, she has a retrieval license.

Joe is a member of the Administration group. He is allocated a full license by the first rule and is unaffected by the second rule. His full license is then removed by the third rule. The fourth rule does not affect him. In the end, he has no license.

Mary is a member of the Managers group. She is allocated a full license by the first rule and is unaffected by the second rule. Her full license is removed by the third rule, but restored by the fourth rule. In the end, she has a full license.

Note that reordering the rules would drastically change the outcome. For example, if the first rule was moved to last, all the above users would be granted licenses, because the rule granting full licenses to all members of the Employee group would run after all the rules removing their licenses or granting retrieval licenses.

---

When processing Active Directory Group Synchronization rules, Laserfiche Directory Server clears out all non-exempt named users. Registered named users that are marked as being exempt from synchronization rules and registered named devices are not affected

If the sum of your synchronization rules allocates more licenses than are available, Laserfiche Directory Server will not modify the list of named users. For example, if you have two synchronization rules that allocate full licenses to two groups: Managers and Administrators, where Managers has 5 members and Administrators has 6 members (with no overlap of members), and there are ten full licenses available for allocation, Laserfiche Directory Server will not allocate any licenses.

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**Note:** Active Directory group synchronization only adds and removes users from the Named Users list, it does not grant them access to your repository or repositories. You will also need to make sure that the user has Trusted authentication status in the Laserfiche Administration Console to allow that user to log in to the repository. However, you can grant the Trusted status to an entire group; its users will inherit that setting even if they have not been manually added.

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Before you can configure a rule, you must subscribe to an identity provider that contains the groups you want to monitor.

### To subscribe to an identity provider

1. Open the Laserfiche Directory Server Web Administration Console and select your licensing site.
2. View the **Settings** tab and click the **Identity Providers** secondary tab.
3. Use the **+Identity Provider** button to open the New Identity Provider page.
4. Specify a display name for the identity provider within Directory Server.
5. Under **Identity Provider Type**, choose either Active Directory or Novell eDirectory to match your desired identity provider.
6. Under **Host**, type the fully-qualified domain name of your Active Directory or Novell eDirectory host name.
7. **Optional:** Under **Root**, specify an appropriate base distinguished name value to limit directory searches to that subtree.
8. **Optional:** Select **Use SSL** to connect using the Secure Sockets Layer (SSL) protocol.

Once you have subscribed to an identity provider, you can create group synchronization rules for that identity provider.

### To create a group synchronization rule

1. Open the Laserfiche Directory Server Web Administration Console and select your licensing site.

2. View the **Settings** tab and click the **Identity Providers** secondary tab
3. Select the desired identity provider.
4. View the **Rules** tab.
5. Make sure that Active Directory synchronization is enabled.
6. Use the **+Add** button to insert a new rule.
7. Under the **Group**, use the ... button to search for a group. Type all or part of the group name you wish to locate and click **Search**.
8. Select the group you want to monitor with this rule.
9. Optional: Under **Organization**, choose whether members of the group should be added to a Directory Server organization.
10. Under **License**, select the type of license you want to assign to members of this group.
11. Use the **+Add** button to insert additional rules as needed.
12. Click **Save** to save your rule.

Because Active Directory group synchronization rules are run in order, and therefore order matters, you can reorder your rules in the list.

#### **To move a rule up or down in the list**

1. Open the Laserfiche Directory Server Web Administration Console and select your licensing site.
2. View the **Settings** tab and click the **Identity Providers** secondary tab
3. Select the desired identity provider.
4. View the **Rules** tab.
5. Use the **Up arrow** or **Down arrow** to the right of a rule to reorder the list.

By default, Laserfiche Directory Server does not automatically run any synchronization rules.

#### **To enable Active Directory Group Synchronization:**

1. Open the Laserfiche Directory Server Web Administration Console and select your licensing site.
2. View the **Settings** tab and click the **Identity Providers** secondary tab
3. Select the desired identity provider.
4. View the **Rules** tab.
5. Make sure **Enable Active Directory Synchronization** is set to **Yes**.

Active directory rules are synchronized according to a configured polling interval. If you want to synchronize rules right away for testing purposes or to resolve an issue, you can do so. (You can also change the synchronization interval; see the Directory Server documentation for more information.)

### **To force Active Directory synchronization**

1. Open the Laserfiche Directory Server Web Administration Console and select your licensing site.
2. View the **Settings** tab and click the **Identity Providers** secondary tab
3. Select the desired identity provider.
4. Click the **Synchronize** button.

### **Configure Users for WebLink Public Portal Access**

If you have allocated public portal licenses to one or more of your Laserfiche Servers, any user on that Laserfiche Server (whether a repository user, a Windows user, or a Novell eDirectory user) will automatically use a public portal license when connecting to the repository via WebLink. If that user has been allocated a named user license, the Laserfiche Server will attempt to connect them using the public portal license first. If the public portal license is a limited license and all connections are in use, the Laserfiche Server will then connect them using their allocated named user license.

If you have configured one or more trustees for anonymous public access (for instance, if you have your WebLink installation configured to automatically log visitors in as a particular Laserfiche user), users connecting to WebLink will automatically be connected as that user without having to specify a user name or password.

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**Note:** For information on configuring users with WebLink, including instructions for configuring automatic anonymous login for public users, see the [WebLink Administration and Configuration Guide](#).

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# Installing the Laserfiche Server

Once you have installed Laserfiche Directory Server, registered your Laserfiche Server, generated a server license, and allocated some of your named users, you can install the Laserfiche Server. You will also need to configure the Laserfiche Server so that users you have allocated named licenses to can log in to the repository.

Laserfiche Rio installations supports an unlimited number of Laserfiche Servers, and up to 15 repositories per Server. You should repeat these steps for as many Servers and repositories as you would like to add.

## Install the Laserfiche Server

Launch the Laserfiche Server installation from the autorun of your installation DVD or downloaded installation package and follow the instructions in the installation wizard. See [Laserfiche Server Installation](#) in the Laserfiche Administration Guide for more information.

The Laserfiche Server can be registered to Laserfiche Directory Server directly through its installation. You will need to provide your Directory Server information during the installation process (You can also register a Laserfiche Server installation and generate a license manually, but it is not necessary to do so.)

Your Laserfiche Server license will contain any Server features included in your master license. For instance, if your master license indicates that you are licensed for Oracle, it will be included in the generated license. The number of Laserfiche named users you allocated will also be included. If you license additional features in the future, or if you want to allocate additional Laserfiche named users to that particular Server, you will need to re-generate your Server license. (See [Updating an Application License](#), below, for more information.)

## Upgrade the Laserfiche Server

If you are installing the Laserfiche Server as an upgrade rather than as a fresh installation, you can simply re-register your Server during the installation. Be sure to select **Use existing registration** during the registration process and choose the Laserfiche Server computer from the list. This will use the same registered installation, with the same allocation of repository named users and public portal licenses.

## Create, Register or Migrate a Repository

Once you have installed your Server, you will need to configure the repositories you will be using with it. You can create a new repository, register an existing Laserfiche 10 repository, or migrate a Laserfiche 6 or 7

repository to 10 and then register it. Creating a repository requires either the desktop Laserfiche Administration Console or the Web Administration Console; see [Laserfiche Administration Consoles](#) for more information. For more information on creating, registering or migration a repository, see the [Laserfiche Administration Guide](#).

Named user licenses in Laserfiche Rio must be allocated to Windows domain users, who must then be added to the repository in the Laserfiche Administration Console. Both steps—allocation of a user license, and granting the user access to Laserfiche—must be performed before the user can log in.

However, when you begin implementing Laserfiche Rio, you must be able to log in to the Administration Console and to the web or Windows client in order to set up the first Windows Accounts users. In order to facilitate this, Laserfiche Rio allows two administrative connections to the Laserfiche Repository in order to set up the initial users.

Once named user licenses have been allocated and the Laserfiche Server and Administration Console have been installed, an administrator must log in to the Laserfiche Administration Console. In new repositories, they will be automatically logged in as the ADMIN user; in migrated repositories, they will be able to log in as any Laserfiche user who has the **Manage Trustees** or **Set Trustee Privileges** privilege. This administrative connection is to allow them to add the Windows Accounts necessary for the allocated named users to log in.

For more information on adding Windows Accounts to your repository, and granting them rights, see the [Security](#) chapter of the Laserfiche Administration Console help files.

## **Grant Repository Access to Named User Windows Accounts**

Once you have activated your named user licenses by associating them with Windows accounts, you will need to ensure that users can access the repository. For more information, see the [Windows and LDAP Authentication](#) section of the Laserfiche Administration Guide.

Each named user must be represented in the Windows Accounts node, and must either have Trusted access or have Inherited access and belong to a group that has Trusted access. However, it is not necessary to add each Windows Account individually. You can add Windows Account groups to Laserfiche; Windows domain users within those groups will inherit access from their parent groups. Once you have added Windows Accounts users and groups to your repository, you can configure security for those Windows Accounts, add them to groups, set up auditing for them, and so on.

Unlike named users, named device licenses and Public Portal licenses do not require a one-to-one correspondence between a named user account and a Windows Account. If users will be connecting using named devices, or using

Public Portal licenses for WebLink, you can allow them to authenticate to Laserfiche using either Windows Accounts or Laserfiche users.

### **Other Considerations**

Laserfiche Rio installations of the Laserfiche Server include Snapshot, Advanced Audit Trail and Email Plug-in, and support Microsoft SQL Server. Oracle and Records Management Edition can also be licensed but are not included by default with Laserfiche Rio. Laserfiche Rio Servers do not require unique serial numbers, and so you may notice that your licenses are generated with the same serial. This allows you to use one client instance to connect to more than one Server.

Laserfiche Rio does not limit the number of Laserfiche Servers you can install or repositories you can create. (A single Server has a technical limit of 15 repositories for performance reasons.)

# Installing Other Products

Along with the Laserfiche Server, Laserfiche Rio includes the web and Windows clients, the Laserfiche app, Workflow, Discussions, Advanced Audit Trail, Snapshot, the desktop and Web Administration Consoles, Federated Search, Web Accelerator, and Distributed Computing Cluster. In addition, if you are licensed for other Laserfiche products, you will be able to generate licenses either by registering them during installation or using Laserfiche Directory Server. In all cases, make sure you are using a generated application license, not the master license.

## Laserfiche Windows Client and Snapshot

The Laserfiche Windows client does not require a license to install or run. The Laserfiche Snapshot license is included as part of the Laserfiche Server license—as long as your Laserfiche Server supports Snapshot, Laserfiche Windows clients connecting to that Server will also support Snapshot.

For more information, see [Laserfiche Windows Client Installation](#) in the Laserfiche Administration Guide.

## Laserfiche Web Client

Like the Laserfiche Server, the Laserfiche web client allows you to register to Laserfiche Directory Server during the product installation. You can also register your installations of the web client in Laserfiche Directory Server before you install, but it is not necessary to do so.

The web client does not support device licenses. Users can only log in to the web client using named users whose accounts have been granted access.

For more information, see [Laserfiche Web Client Installation](#) in the Web Client Administration and Configuration guide. The web client includes the Laserfiche SharePoint integration (which does not require its own license).

## Workflow

Laserfiche Workflow does not require a license if you are installing it for use with a Laserfiche Rio or Laserfiche Avante Server. You will not be prompted for a license when installing either the Workflow Designer or the Workflow Server with Laserfiche Rio.

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**Note:** The Workflow Server itself does not require a named user license. However, a user logging in to the Workflow Designer must have a full named user license.

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For more information, see [Laserfiche Workflow Installation and Setup](#) in the Workflow documentation.

## **Laserfiche App**

The Laserfiche app server installation allows you to register to Laserfiche Directory Server during the product installation. You can also register your installations of the Laserfiche app server in Laserfiche Directory Server before you install, but it is not necessary to do so. The Laserfiche app does not support device licenses. Users can only log in to the Laserfiche app using named user accounts that have been granted access. The Laserfiche app may be installed an unlimited number of times.

For more information, see the [Laserfiche App Installation and Configuration](#) help files.

## **Laserfiche Administration Consoles**

There are two Laserfiche administration consoles: the desktop Laserfiche Administration Console, which is installed on each workstation individually, and the Web Administration Console, which is installed centrally and can be accessed via a browser. The desktop Administration Console is part of the Laserfiche Windows client installation, whereas the Web Administration Console has its own installation. Neither product requires a license to install or run, although users must still have a named user license to log in. Note that, as it is a web product, the Web Administration Console cannot be used in conjunction with a named device license.

For more information, see [Laserfiche Windows Client Installation](#) and [Laserfiche Web Administration Console Installation](#) in the Laserfiche Administration Guide.

## **Laserfiche Discussions**

Laserfiche Discussions allows you to register to Laserfiche Directory Server during the product installation. You can also register your installations of Discussions in Laserfiche Directory Server before you install, but it is not necessary to do so. Users do not need named user licenses to use Laserfiche Discussions.

For more information, see the [Laserfiche Discussions documentation](#).

## **Web Accelerator**

The Web Accelerator installation allows you to register to Laserfiche Directory Server during the product installation. You can also register your installations of Web Accelerator in Laserfiche Directory Server before you install, but it is not necessary to do so. Web Accelerator may be installed an unlimited number of times.

For more information, see [Laserfiche Web Accelerator Installation Guide](#).

## Laserfiche Distributed Computing Cluster

The Laserfiche Distributed Computing Cluster installation allows you to register to Laserfiche Directory Server during the product installation. You can also register your installations of Distributed Computing Cluster in Laserfiche Directory Server before you install, but it is not necessary to do so.

For more information, see [Getting Started with Laserfiche Distributed Computing Cluster](#).

## Other Applications

The following applications are not included as part of Laserfiche Rio. However, if you are licensed for them, they will be included in the master license and therefore can be managed through Laserfiche Directory Server.

### Forms

You can register a Forms instance to Laserfiche Directory Server during the product installation, or in Laserfiche Directory Server before you install. There are two ways that Forms can be installed. Standard Forms can be installed an unlimited number of times and requires users to have either a named user license or an authenticated participant license. Forms Portal allows for public, anonymous access, but may be limited in number of instances.

The number of instances of Forms Portal you can install depends on the number of Forms Portal licenses in your master license; Enterprise Forms Portal allows you unlimited Forms Portal installations. To install a particular Forms instance as Forms Portal, select the Forms Portal license block when registering Forms. (If you have Enterprise Forms Portal, any Forms instance you create will be a Portal instance without any additional configuration.)

For more information on named users and participant users in Forms, and on Forms Portal, see [Forms User Licensing](#).

Like other web products, Forms does not support device licenses.

For more information on installing and configuring Forms, see [Installing Laserfiche Forms](#) in the Laserfiche Forms help files.

### Laserfiche Connector

The Laserfiche Connector installation allows you to register to Laserfiche Directory Server during the product installation. You can also register your installations of Laserfiche Connector in Laserfiche Directory Server before you install, but it is not necessary to do so.

For more information, see [Installing Laserfiche Connector](#) in the Laserfiche Connector help files.

## Quick Fields

The Laserfiche Quick Fields installation allows you to register to Laserfiche Directory Server during the product installation. You can also register your installations of Quick Fields in Laserfiche Directory Server before you install, but it is not necessary to do so.

Your Quick Fields license will contain the Quick Fields add-ons included in your master license; for instance, if your master license indicates that you are licensed for Forms Processing, it will be included in the generated license. (If you are licensed for multiple Quick Fields instances with different sets of features, you will need to be sure to s for a particular installation.) If you license additional features in the future, you will need to re-generate your Quick Fields license. (See [Updating an Application License](#), below, for more information.) Quick Fields is licensed by seat; it does not allow unlimited installations. Quick Fields can be used with both device and named user licenses.

For more information, see [Laserfiche Quick Fields Installation](#) in the Quick Fields documentation.

## WebLink

The Laserfiche WebLink installation allows you to register to Laserfiche Directory Server during the product installation. You can also register your installations of WebLink in Laserfiche Directory Server before you install, but it is not necessary to do so.

WebLink is compatible with public portal licenses, which allow unlimited access to a single CPU. Public portal access is read-only and is linked to the Laserfiche Server that WebLink will be connecting to. If your Laserfiche Server has a public portal license, users who access it using WebLink will connect using that public portal license. See [Configure Users for WebLink Public Portal Access](#) for more information.

Public portal licenses may support either a specific number of concurrent connected users, or unlimited users. If your public portal license is unlimited, you must have as many public portal licenses as you have CPUs on the Laserfiche Server that WebLink connects to; you can either license individual processors, or license dual processors or multiprocessor licenses. Note that large numbers of connections can affect server performance. If your Laserfiche Server requires an additional CPU to handle this load, an additional public portal license will be needed.

WebLink supports unlimited installations. However, in order to log in, either the user must have a named user license or the Laserfiche Server must have been allocated a public portal license. See [Public Portal Licenses](#) for more information.

For more information, see [Laserfiche WebLink Installation](#) in the Administration and Configuration guide.

## **Import Agent**

Like the Laserfiche Server, Import Agent 8.1.1 and later allows you to register to Laserfiche Directory Server during the product installation. You can also register your installations of Import Agent in Laserfiche Directory Server before you install, but it is not necessary to do so.

Import Agent is licensed by seat; it does not allow unlimited installations. Import Agent can be used with both device and named user licenses.

## **ScanConnect**

Like the Laserfiche Server, ScanConnect 8.3 and later allows you to register to Laserfiche Directory Server during the product installation. You can also register your installations of ScanConnect in Laserfiche Directory Server before you install, but it is not necessary to do so.

Using ScanConnect does not take up any additional licenses than those already used during the scanning process. ScanConnect is licensed by instance; it does not allow unlimited installations.

## **Laserfiche SDK**

The Laserfiche SDK allows you to register to Laserfiche Directory Server during the product installation. You can also register your installations of the SDK in Laserfiche Directory Server before you install, but it is not necessary to do so. The SDK runtime installation does not require a license to install.

Applications and integrations created with the Laserfiche SDK must authenticate to Laserfiche, as in prior versions of the SDK. With Laserfiche Rio, you can either configure a Windows domain user for the application to log in as, and configure a named user for the user that the integration is running as, or you can designate the computer that the application or integration will run on as a named device. In either case, the SDK will respect the connection limitations of the license type—if more than four simultaneous connections are needed for your applications and integrations, you will need to specify additional named users.

## **Plus**

You can activate Laserfiche Plus through Laserfiche Directory Server, or using Plus' native activation tool. Either process will successfully activate your Plus installation. Laserfiche Plus is activated by seat; it does not allow unlimited installations. Plus can be used with both device and named user licenses.

## **Agenda Manager**

You can generate Agenda Manager licenses through Laserfiche Directory Server, and will need to provide the generated license when prompted during

the installation. Agenda Manager is licensed by seat; it does not allow unlimited installations. During registration, you will allocate your profiles to individual Agenda Manager installations. Agenda Manager can be used with both device and named user licenses.

For more information, see [Installing Agenda Manager](#) in the Agenda Manager documentation.

# Laserfiche Rio Maintenance

Once you have your Laserfiche Rio installation running, you may need to perform certain maintenance operations on it. For instance, it is a good idea to back up your licensing database. You may need to update your master license to reflect new products or features you have licensed. Or you may need to move your Laserfiche Directory Server and database to a new computer. This section will discuss how to perform those operations.

## Back Up Your Licensing Database

There are various tools for backing up Microsoft SQL Server database available. As part of your standard maintenance plan for SQL Server, you should also make sure to back up the Directory Server database.

SQL Management Studio and SQL Management Studio Express contain a native backup tool that can be used to back up Directory Server licensing databases. SQL Management Studio is installed by default with Microsoft SQL Server, and SQL Management Studio Express can be downloaded from the Microsoft website.

## Update a Master License

If you license additional features for your site—such as additional named user licenses, additional public portal licenses, new products, or new product features—you will need to update your master license to ensure that newly-generated licenses contain those new features.

### To update a master license

1. In the Directory Server Web Administration Console, click the **Settings** tab.
2. Specify how you would like to add your license.
  - To retrieve the updated master license from Laserfiche, select **Activation key** and enter your activation key in the field.
  - If you have a copy of the updated master license file on hand, you can use that instead. Select **Import master license file**.
3. Click **OK** to use the license.

## Update an Application License

You may need to update the information for a particular application instance and generate a new license. For example, you might want to add a license feature that you recently added to your master license, or you might need to generate a new license to update a product to the next version.

### To update an application license:

1. Unregister the application instance you want to modify.

- a. Open the Laserfiche Directory Server Web Administration Console and select your licensing site.
  - b. View the **Applications** page.
  - c. Select the **Applications** tab
  - d. Select the type of application you want to unregister an instance of.
  - e. Select the application instance you want to unregister and click **Delete**.
2. Verify that your master license is up to date. For instance, if you licensed a feature such as Oracle support, verify that those new attributes are present in the master license. If they are not, update your master license. See [Update a Master License](#), above, for more information.
  3. Register the application instance again using the new settings you want for the license. See [Register Your Laserfiche Server](#) or [Register Your Other Applications](#), above, for more information. When you do so, generate a new license.
  4. On the computer on which the application you want to update is installed, replace the existing license file (lf.licx) with the new one.
  5. Restart the application. (If the application runs as a service, you will need to restart the service.) The new license features will not take effect until the application or service has been restarted.

## Move Your License Server and Database

In some cases—for instance, if you are upgrading your hardware, or moving your installation to a new site—you may need to move your Directory Server to a different computer. To do so, you will need to detach and unregister your licensing database, install the Directory Server in the new location, and then attach and activate the database to the new location. The following steps will guide you through the process.

### To move a Laserfiche Directory Server to a new computer:

1. On the original computer, detach the licensing database you want to move:
  - a. Open the Laserfiche Directory Server Web Administration Console and select your licensing site.
  - b. View the **Settings** page.
  - c. On the **General** tab, click **Detach licensing site**.

- d. Confirm that you want to detach the site. Make sure that you do not choose the option to also delete the database within SQL Server.
2. Install Directory Server on the new computer. See “Install Directory Server,” above, for more information on this step.
3. Attach the licensing database to the new Directory Server installation:
  - a. Open the Laserfiche Directory Server Web Administration Console and select your licensing site.
  - b. Use the licensing site name drop-down menu to select **+Create Licensing Site**.
  - c. Specify a display name for the new licensing site.
  - d. Specify the appropriate SQL Server database information of the detached licensing site.
  - e. Click **Attach Site**.

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**Note:** After moving Laserfiche Directory Server, you will need to re-generate licenses for the Laserfiche Server, Quick Fields, and Import Agent and replace them for those installations. Other product licenses do not need to be re-generated.

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Laserfiche Rio 10.3 Deployment Guide  
January 2018

Author: Constance Anderson, Roger Wu  
Editor: Tammy Kaehler, Misty Blair  
Technical Editor: Justin Pava, Miruna Babatie

Description:

This guide explains the way that Laserfiche licensing works, including the various license types available with Laserfiche Rio. It also walks you through the process of setting up your Laserfiche Rio installation, whether you are upgrading an existing repository to Laserfiche Rio or implementing an entirely new installation.

Laserfiche  
3545 Long Beach Blvd.  
Long Beach, CA 90807  
U.S.A

Phone: +1.562.988.1688  
[www.laserfiche.com](http://www.laserfiche.com)

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