OL® Connect

Enterprise

Installation and Activation Guide

Version 2024.2.4

Objectif Lune

Objectif Lune

OL® Connect



OL Connect (Enterprise edition)
Installation and Activation Guide
Version 2024.2.4
Last Revision: 2026-11-05

All trademarks displayed are the property of their respective owners.

© Upland Software, Inc. Inc. 1994-2026. All rights reserved. No part of this documentation may be reproduced, transmitted or distributed outside of Upland Software, Inc. by any means whatsoever without the express written permission of Upland Software, Inc.. Upland Software, Inc. disclaims responsibility for any errors and omissions in this documentation and accepts no responsibility for damages arising from such inconsistencies or their further consequences of any kind. Upland Software, Inc. reserves the right to alter the information contained in this documentation without notice.

Table of Contents

System and hardware considerations 7

Antivirus Exclusions 7

Directories and folders 7

Database Considerations 9

Using the MariaDB Instance from the Installer 9

Installing Connect using an existing MySQL instance 9

Installing Connect using an existing Microsoft SQL Server instance 11

When modifying Connect 11

Environment considerations 12

Remote Desktop Support 12

Antivirus Considerations 12

Windows Search Indexing Service 13

Commandline switches and .ini entries 13

Language and Encoding Considerations 13

Network considerations 14

Firewall/Port considerations 14

Performance considerations 16

Performance analysis details 16

Engine configuration 17

Template optimization 17

Data optimization 17

Network and internet connections 17

Hardware configuration 18

System requirements 18

Operating system 18

Supported virtual environments 19

Recommended system requirements for the OL Connect / Workflow servers 19

A word of caution 20

Rules of thumb 20

Installation and activation 21

Where to obtain the installers 21

Installation prerequisites 22

User accounts and security 22

Windows user account 22

OL Connect Server user accounts 23

Installing OL Connect on machines without internet access 24

Updating Connect 24

Initial OL Connect installation 24

Installation Wizard 25

Updating from Connect versions predating 2019.1 25

Starting the OL Connect installer 25

Prerequisites Installation ... 26
Welcome screen ... 26
License Agreement ... 27
Component Selection ... 27
OL Connect Service Configuration ... 30
OL Connect Server Connection ... 31
Database Configuration ... 32
Configuring External Database Connection ... 33
Ready to install ... 35
Installation Finished ... 35
The Product Update Manager ... 35
Product Activation ... 36
Running OL Connect installer in Silent Mode ... 36
Updating from Connect versions predating 2019.1 ... 36
General information ... 36
Installation Properties file ... 36
Properties file examples ... 42
Exit Codes ... 43
Activating a License ... 45
Obtaining the OL Connect Magic Number ... 45
Requesting a license ... 46
Activating OL Connect Workflow ... 47
Activating OL Connect ... 47
Reactivating your license ... 48
Migrating to a new workstation ... 48
Before installing the software ... 49
Downloading and installing the software ... 49
Backing up files from the current workstation ... 49
Upgrading ... 55
Upgrading from previous OL Connect versions ... 55
Upgrading from PReS Classic ... 61
Upgrading from PlanetPress Suite 6/7 ... 61
Information about OL Connect Workflow ... 74

Server configuration settings **76**

Connection preferences ... 77
Background ... 77
Connection settings (standalone/Master) ... 77
Connection settings (Client) ... 79
Security and Users Settings ... 80
Engine configuration ... 81
Speed quota: Pages Per Minute ... 83
Launching multiple engines ... 84
Allocating processing power to jobs ... 86
Automatic Restart settings ... 90

Parallel Processing preferences 91
Parallel Processing properties (Designer Preferences) 91
Parallel Processing properties (Server Configuration) 92
Server Clustering 98
Quick HowTo 99
Clustering Preferences and Setup 100

Known Issues **102**

Issues with Windows Update italicizing Times New Roman font 102
Issues with User profile names containing Unicode characters 102
Dynamic email attachments issue (2024.2.1 specific) 102
Issues with Virtual Stationery when Security settings used in PDF Output 103
OL Connect Send plugin issues when only Workflow installed (2024.2 specific) 103
Adding entries to manually added detail tables (2023.2 onwards) 103
Logging issue 103
Mode switching issue with cloned sections 104
Remote translation files issue 104
Unicode Variation Selectors issue 104
ODBC drivers do not all work with OL Connect 105
Incorrect colors in print preview 105
Account permission issues 105
Incorrect warning when sending email from Designer 105
Master Page not affected by style rules for <body> 105
Line and Bar charts 112

Uninstalling **118**

Legal Notices and Acknowledgments **120**

System and hardware considerations

There are a variety of considerations to be aware of. These are documented in the following pages:

- "System requirements" on page 18
- "Database Considerations" on page 9
- "Environment considerations" on page 12
- "Known Issues" on page 102
- "Language and Encoding Considerations" on page 13
- "Antivirus Exclusions" below
- "Performance considerations" on page 16

Antivirus Exclusions

The information on this page is designed to assist IT managers and IT professionals decide what anti-virus strategy to follow with consideration to OL Connect and their internal requirements and needs. This page describes the mode of operation and the files and folders used by OL Connect as well as the files, folders and executables that are recommended to be ignored for best possible performance and to avoid issues caused by antivirus file locks.

IT managers and IT professionals then may decide the anti-virus strategy to follow for their internal requirements and needs depending on the statements outlined herein.

Directories and folders

All Connect applications are installed under an arbitrarily selectable main folder. If the default installation folder options were used, this installation folder would be "`%PROGRAMFILES%\Objectif Lune\OL Connect`".

The installation folder will hold all the executable files and other files and folders required for the operation of the whole product suite. All these files and folders remain static after installation. It depends upon the company virus protection strategy, if such files and folders will be monitored or not.

We do, however, recommend that the following file or folders be ***excluded*** from antivirus protection.

Connect Service

The Connect Service is run via the executable file **ServerService.exe**. This file has been reported as causing issues with some antivirus packages, so we recommend adding this file to the antivirus exclusion list, if possible.

The executable will be installed to the installation target "**Connect Server**" sub-folder. The full installation folder can be found by entering "`%PROGRAMFILES%\Objectif Lune\OL Connect\Connect Server`" in Windows Explorer.

AFP Input (Enterprise edition only)

Performance issues have been reported with the **AFP Input** option under Windows Server versions from Windows Server 2012 onwards. The issues have been specifically associated with Windows Servers running Windows Defender, but the performance degradation might also be encountered when using other Antivirus applications.

Consequently, we recommend that an exclusion be made for the *afp2pdf.exe* executable file in your Antivirus application.

The *afp2pdf.exe* file is stored in a subfolder under the installation folder. If the exact installation folder name is required, enter the standardized system variable `%PROGRAMFILES%` in Windows Explorer and then search for *afp2pdf.exe*.

Working folders

Working folders for Connect are created and used on a per-user-basis under the respective user's profile folder, accessible on Windows with the standardized system variable `%USERPROFILE%` in the subfolder "Connect". Working folders are:

- "`%USERPROFILE%\Connect\filestore`": This folder will hold non-intermediate files for the operation of Connect. Files in this folder will be used frequently, but not with a high frequency. Supervising this folder with a virus protection system should not have too much of an impact on the speed of the whole Connect suite.
- "`%USERPROFILE%\Connect\logs`": As the name implies, log files are created and updated here. These log files are plain text files. Virus protection may have an impact on the speed of the whole Connect suite.
- "`%USERPROFILE%\Connect\temp`": Storage folder for temporary data, usually intermittent files in multiple folders. Virus protection on this folder and its subfolders may have a serious impact on the performance of Connect.

- "`%USERPROFILE%\Connect\workspace`": Usually containing settings and helper files and folders. Supervising this folder with a virus protection system should not have too much of an impact on the speed of the whole Connect suite.

Database 1

Depending on the components installed, a database instance is created in a folder called "**connect.database**" under the Windows system temp folder. This folder is accessible via the standardized system variable `%TMP%`. Usually, folders holding such temporary files and folders should be excluded from a virus protection, because this influences the overall performance of the whole system at all. However the responsible person for the computer protection has to decide about the monitoring of such temporary folders following the company guidelines.

Database 2

Another database instance for Connect will be hold and used under the folder, which is intended to hold data, accessible by and for all users. The path to this folder is stored in the standardized system variable `%PROGRAMDATA%`. The Connect database instance is located in the subfolder "**Objectif Lune\OL Connect\MariaDB**".

As this database will be in extremely strong usage, virus protection on this folder and its sub-folders may have a **serious** impact on the performance of Connect.

Database Considerations

This page describes the different considerations and pre-requisites for the database back-end used by OL Connect, whether using the MariaDB instance provided by the installer, or pre-existing (*external*) instance.

Using the MariaDB Instance from the Installer

The MariaDB Instance provided in the "Installation Wizard" on page 25 is already pre-configured with options to provide the most stable back-end setup.

Installing Connect using an existing MySQL instance

If MySQL Server is already present and you wish to use it, the following should be taken into consideration:

- The minimum supported MySQL version is MySQL 5.6.
- The MySQL account must have access to all permissions using the GRANT Command, including creating databases.
- The database configuration must include the following options:
    - **max_connections = 200** : OL Connect uses *a lot* of database connections. This number ensures that even in high volume environments, enough connections will be available.
    - **max_allowed_packet = 500M** : In some implementations, especially when using Capture OnTheGo, large packet sizes are required to allow transferring binary files. This substantial packet size maximum setting ensures that the data received by OL Connect will be able to be stored within the database.
    - **character-set-server = utf8 , collation-server = utf8_unicode_ci , default-character-set=utf8** : These indicate database support for UTF-8/Unicode.
- The database configuration must allow the use of mixed case table names. This is particularly an issue on Linux MySQL installations.
- The SQL instance must be open to access from other computers. This means the bind-address option should not be set to 127.0.0.1 or localhost.

Caution: If you chose **not** to install the supplied MariaDB database, and instead opt for using a pre-existing (*External*) database then you yourself must ensure that the *External* database is accessible to Connect.

Upland Software, Inc. will take no responsibility for setting up database connections to any but the supplied MariaDB database.

See "Database Considerations" on the previous page for more information about setting up *external* databases.

Options available within the installer:

- The Configuration page for the local MySQL is displayed.
- MySQL settings are pre-filled with default values if no existing MySQL database configuration is found.
- MySQL settings are pre-filled with existing database configuration settings, if they point to a MySQL database type.

Installing Connect using an existing Microsoft SQL Server instance

If Microsoft SQL Server is already present and you wish to use it, the following should be taken into consideration:

Caution: If you chose **not** to install the supplied MariaDB database, and instead opt for using a pre-existing (*External*) database then you yourself must ensure that the *External* database is accessible to Connect.

Upland Software, Inc. will take no responsibility for setting up database connections to any but the supplied MariaDB database.

See "Database Considerations" on page 9 for more information about setting up *external* databases.

Note: Since OL Connect version 1.6 the minimum required version of the MS SQL Server is **SQL Server 2012**.

- When MS SQL is selected, the default values for root user are **sa** and **1433** for the port.
- If database settings from a previous OL Connect installation are found, the pre-exising settings will be displayed for the matching database type. For MS SQL settings, this will only work if they were created with Server Config Tool 1.5.0 or later, or the Installer for OL Connect 1.6.0 or later.
  If the database type is changed in the Installer configuration page, the default values for this database type will be displayed.
  If the pre-existing database settings are set to Hsqldb, the default database type selection will be MySQL.
- Selected database settings are stored in the preferences, and can be found in this file: *C:\ProgramData\Objectif Lune\OL Connect\.settings\ConnectHostScope\com.objectiflune.repository.eclipselink.generic.prefs*

When modifying Connect

- If the local MariaDB is removed from an installation, the Database Configuration page will offer additionally the **Microsoft SQL Server** database type with respective default values.
- If local MariaDB is added to an installation, the usual MariaDB Configuration page with default values will be displayed.

If the user has installed the Installer Supplied MySQL (2021.2 or earlier) or MariaDB (2022.1 and later) and then switches to an *external* Microsoft SQL by using the Server Configuration Tool, the supplied local database cannot be switched off. By design the installer adds a service dependency between Connect Server and the supplied MariaDB \ MySQL service.

To remove this dependency the user needs to do the following

1. Have a foreign Microsoft SQL running, ready for use with Connect Server.
2. Use the **Server Configuration Tool** Database Connection preferences to switch the database to Microsoft SQL.
3. Re-start the Connect Server Service, so that the modifications become active.
4. Counter check that everything is working properly with Microsoft SQL.
5. Open a command-line prompt with full administration rights.
6. Enter the command `sc config OLConnect_Server depend= /`. This removes the dependency.

   Please be aware: The key word `depend` must be followed immediately by the equal sign, but between the equal sign and the forward slash there must be a space.

   Additional information can be found here: http://serverfault.com/questions/24821.
7. After the dependency has been removed, it is possible to stop the supplied MariaDB \ MySQL service (OLConnect_MySQL).

Environment considerations

Remote Desktop Support

Tests have demonstrated that OL Connect can be used through Remote Desktop. It is however possible that certain combination of OS could cause issues. If problems are encountered, please contact OL Support and we will investigate.

OL Connect 1.3 and later have been certified under Remote Desktop.

Antivirus Considerations

- Antivirus software may slow down processing or cause issues if they are scanning in temporary folders or those used by OL Connect. Please see "Antivirus Exclusions" on page 7 for more information.

- Antivirus software might interfere with installation scripts, notably a VBS script to install fonts. McAfee, in particular, should be disabled temporarily during installation in order for MICR fonts to install and the installation to complete successfully.

Windows Search Indexing Service

Tests have concluded that the Windows Search service, used to provide indexing for Windows Search, can interfere with Connect when installing on a virtual machine. If the installation hangs during the last steps, it is necessary to completely disable this service during installation.

- Click on Start, Run.
- Type in **services.msc** and click OK.
- Locate the **Windows Search** service and double-click on it.
- Change the **Startup Type** to **Disable**, and click **Stop** to stop the service.
- Try the installation again.
- Once complete, you may re-enable the service and start it.

Commandline switches and .ini entries

OL Connect is intended to work stably and reliably, based on Java and the Eclipse framework. To ensure this reliability and robustness, many Java and Eclipse parameters have been tested and tuned, which is reflected in the respective .ini entries and the used command line switches. A collection of valuable settings has been elaborated and found its entry in OL Connect "good switches list" (called the "whitelist").

The protection of the end user's system is one of our main goals and therefore we have implemented a very strict verification mechanism, which ensures, that only these whitelisted ini entries and command-line switches are accepted, when one of Connect components is started and run. Please be therefore advised, that any non-whitelisted ini entry or command-line switch will be accepted and will - if tried to be used - lead to the respective application's "sudden death". If you should encounter such a behavior then please double-check your Connect log file/s for respective entries.

Language and Encoding Considerations

Please note the following considerations:

- **Language**:

  OL Connect is currently offered in several languages. You can switch between these languages via the Preferences dialog. The current languages include:

  - English
  - French
  - German
  - Spanish
  - Italian
  - Korean
  - Portuguese
  - Chinese (Simplified)
  - Chinese (Traditional)
  - Japanese.

  The default language is English.

  The OL Connect help system (this document and the online help) is currently only available in English and (for the biggest part) in French.

- **Encoding**:

  Issues can sometimes be encountered in menus and templates when running OL Connect on a non-English operating system. These are due to encoding issues and will be addressed in a later release.

Network considerations

The following should be taken into consideration in regards to network settings and communications.

- If a local proxy is configured (in the **Internet Explorer Options** dialog), the option **Bypass proxy server for local addresses** must be checked, or some features depending on local communication will not work.

Firewall/Port considerations

The following describes all of the ports that can be used by an OL Connect solution. IT staff may decide the firewall strategy to follow for their internal requirements and needs depending on the statements outlined herein.

	Listens on port #	Destination port #	Type	Comment
FTP Input/Output		**21**	TCP	
Send Email plugin		**25**	TCP	Default SMTP port
SMTP Input plugin	**25**, or **587** when encryption is enabled		TCP	
Email Input plugin		110	TCP	Default POP3 port
Simple Network Management Protocol (SNMP)	161 & 162		UDP	Used by Print Manager, which is only available in OL Connect Enterprise edition.
HTTPS Server	**443**		TCP	
LPR		515	TCP	
LPD	515		TCP	
Secure Email Output plugin		**587**	TCP	
Secure Email Input plugin		**993**	TCP	
Microsoft SQL Server	**1433**		TCP+UDP	
Print Manager	2020		TCP	Used by Print Manager, which is only available in OL Connect Enterprise edition.
MariaDB/MySQL	**3306**		TCP+UDP	
IPDS printer connection	**5001**		TCP	Used by Print Manager, which is only available in OL Connect Enterprise edition.
Messenger	**5863/5864**	**5863/5864**	TCP+UDP	Used for inter-module communication
HTTP Server	**8080**		TCP	
NodeJS HTTPS Server	**8443**		TCP	
HyperSQL	**9001**		TCP	
NodeJS Server	**9090**		TCP	
Telnet	**9100**		TCP	
Connect Server	**9340**		TCP	Used for Connect REST API
Connect Server	**9350**		TCP	Dedicated internal connection for inter-process communication (i.e. between engines)

- Port numbers in **bold** type are user configurable.
- Port numbers in **bold underlined** type are based on the type of database used.
- Some of the ports listed above may also be used by other modules.
- User-configurable modules may use other ports entirely, depending on the settings defined by the end user. A few examples:
  The **Create Email Content** plugin will use the port defined in the Mail host setting in

Workflow's OL Connect Preferences.
The ports used by the **HTTP Client Input** task, **Legacy SOAP Client** and **SOAP Client** plugin depend on the configured URL.

Performance considerations

In order to get the most out of OL Connect, it is important to determine how best to maximize performance. The following guidelines will be helpful in extracting the best performance from OL Connect and they give a rough indication when it would be useful to start looking into hardware upgrades.

Performance analysis details

OL Connect's output speed is limited to a certain number of output items (web pages, emails, or printed pages) per minute. What the **maximum** total output speed will be is determined by your license (see "Speed quota: Pages Per Minute" on page 83).

To get an indication of the **actual** Print output speed, output a Print template to a AFP (Enterprise edition only), PDF or PS file, using one single Weaver engine and the maximum target speed per job (see "Parallel Processing preferences" on page 91).
Next, open the log file of the Weaver engine. By default, the log files are located in this folder: `C:\Users\[username]\Connect\logs\WeaverEngine`, where `[username]` is your own Windows user name.
Search the log file for "PPM" (pages per minute). Repeat this a few times to determine the average output speed.
Likewise, the output speed for an Email or Web template can be found by running it with one Merge engine and the maximum target speed per job. In the Merge engine's log file, search for "PPM".

If your jobs are not running at the licensed speed, there may be several ways to improve performance, as described below. Make sure to address all issues mentioned in this topic before deciding that you need to invest. Note however that it is not guaranteed that the licensed speed can be achieved with *any* job. Creating output for templates with very complex scripts or complex graphics resources will take a certain amount of time, even on high-end hardware.

Improving performance beyond what can possibly be reached by using the methods described below requires purchasing a Performance Pack (see Performance Packs).

For advice please contact your local sales office (see Upland Objectif Lune's Contact page).

Engine configuration

As explained in another topic (Connect: a peek under the hood) the Connect Server cooperates with different engines to handle specific tasks.

A **DataMapper engine** extracts data from a data file. A **Merge engine** merges the template and the data to create Email and Web output, or to create an intermediary file for Printed output. The intermediary file is in turn used by a **Weaver engine** to prepare the Print output. A **Merge engine** merges the template and the data to create an intermediary file for Printed output. The intermediary file is in turn used by a **Weaver engine** to prepare the Print output.

Configuring these engines to match both the hardware configuration and the typical usage situation is probably the most effective way to improve Connect's performance.

The number of engines is one of the "Parallel Processing Preferences" that let the Connect Server manage its workload in such a way that the highest possible output speed is achieved.

For an explanation and guidelines to these settings, see "Engine configuration" on page 81 and "Parallel Processing preferences" on page 91.

> **Note:** Connect Server and Connect Designer each have their own distinct scheduling preferences.
>
> Use the **Connect Server Configuration** tool to change the Connect Server settings and **Designer > Windows >Preferences** for changing Designer settings.

Template optimization

When you find that the speed per Merge engine - the Content Creation speed - is low, optimizing a template can make a huge difference. For advice on how to optimize a template see: Optimizing a template.

Data optimization

One record that produces thousands of pages will take long because only one merge engine can work on it. To produce output faster, try splitting the data into multiple records.

Network and internet connections

Use a fast network and internet connection or avoid loading external or internet resources. Using images, JavaScript or CSS resources located on a slow network or on a slow internet connection will obviously lead to a loss of speed. While we do our best for caching, a

document with 5,000 records which queries a page that takes 1 second to return a different image each time will, naturally, slow output generation down by up to 83 minutes.

Hardware configuration

When processing speed is important, the following is suggested after addressing the other issues mentioned in this topic.

- **Antivirus exclusions**. Sometimes, virus scanners, other security software or indexing services can interfere. It can help to disable those kinds of tools for the areas where Connect stores intermediate files. You could exclude the entire `C:\Users\<connectuser>\Connect` folder. See also: "Antivirus Exclusions" on page 7.
- Use a **high-performance, low-latency hard drive**. Connect benefits from fast I/O. This is especially true for DataMapper engines (see "DataMapper engine" on page 85). Preferably use a Solid State Drive (SSD) or similar for storage.
- Use at least **8+ GB High-Quality RAM**. Check memory usage while the Print command is being executed to see if you need more than the minimum of 8GB. Assuming that the Connect Server and the Connect database need 1GB each, and that each engine needs 1GB as well, you can roughly estimate how much memory is needed.
- **Consider using a physical machine** instead of a virtual machine. When running on a Virtual Machine, the machine may report that it has sufficient hardware (cores) available, but in a virtual environment you need to make sure that this hardware is not being shared with lots of other virtual machines.
- Consider using hardware with more **physical cores**. OL Connect doesn't limit the number of Merge engines that is used for a Print job, so if the number of physical cores is low, it makes sense to see if that can be increased. When running on a virtual machine, this is usually easy. When running on a physical machine, it means that you may have to switch hardware.
- For both virtual and non-virtual environments, make sure the machine is not busy with all kinds of other processes.

System requirements

These are the system requirements for OL Connect 2024.2

Operating system

Any 64 bit Windows Desktop or Server version which is in its **mainstream** support period, as defined by https://learn.microsoft.com/en-us/lifecycle/.

New versions of Windows are supported within the first 6 months of their commercial release.

Note: ARM CPUs are not supported. This applies to machines running Windows on ARM and virtualization software running on Apple computers, such as Parallels Desktop.

Supported virtual environments

- VMWare vCenter/vSphere
- Microsoft Hyper-V/Azure
- Amazon Web Services (AWS)
- Google Cloud Platform

Note: Multi-user environments like Terminal Services or VMWare Horizon are not officially supported.

Recommended system requirements for the OL Connect / Workflow servers

As with any software application, minimum hardware requirements represent the most basic hardware on which the software will run. Note however that settling for the minimum specification is unlikely to produce the performance you expect from the system. It can be used when configuring a trial or a development system, however.

- **CPU**: at least 8 64-bit logical processors (aka threads)
- **RAM**: at least 16 GB
- **Storage**: at least 100GB available on fast SSD for the system drive (by default this means the C: drive)
- **Networking**: at least 1Gbps

Note: These values are for the OL Connect **Servers** when used in production. The OL Connect Designer and the Workflow Configuration Tool can be used on systems with lower hardware specifications, so long as they are not used to generate production output.

A word of caution

OL Connect is used for a very wide variety of applications. Consequently, it is difficult to determine which system configuration will produce the best results for any given application. The specifications above are therefore meant as general guidelines that *should* produce the expected results for *most* implementations.
Keep in mind, however, that they may not represent the optimal configuration for your particular application.

Rules of thumb

When installing on multiple PCs, keep the following rules of thumb in mind:

- The more logical processors, the better
- Higher CPU clock speeds are recommended: 24 logical processors @3GHz may perform better than 32 logical processors @2.2 GHz, depending on the workload
- For each additional logical processor, plan to add 2 GBs of RAM
- The number of logical processors is in direct relation with the number of OL Connect engines that can efficiently run concurrently

Installation and activation

This topic provides detailed information about the installation and activation of OL Connect 2024.2.

Note: A PDF version of this guide is available for use in offline installations. Click here to download it.

OL Connect 2024.2 is comprised of 2 different installers: one for the OL Connect software and one for OL Connect Workflow 2024.2.

Where to obtain the installers

The installers for OL Connect 2024.2 and Workflow 2024.2 can be obtained on DVD or downloaded as follows:

- If you are a **Customer**, the installers can be downloaded from the Upland Objectif Lune Web Activation Manager (https://www.objectiflune.com/webactivationmanager/) or through the OL Update Manager if it is activated.
- If you are a **Reseller**, the installers can be downloaded from the Upland Objectif Lune Partner Portal site (https://extranet.objectiflune.com/) or through the Upland OL Update Manager if it is activated.

Installation - important information

For important information about the Installation, including requirements and best practices, please see the following topics:

- "Installation prerequisites" on the facing page
- "User accounts and security" on the facing page
- "Migrating to a new workstation" on page 48
- "Upgrading from previous OL Connect versions" on page 55

Installation - "How to" guides

For information on how to conduct the installation itself, choose from the following topics:

- "Installation Wizard" on page 25
- "Running OL Connect installer in Silent Mode" on page 36
- "Installing OL Connect on machines without internet access" on page 24

Activation

For information on licensing, please see "Activating a License" on page 45.

Installation prerequisites

- Make sure your system meets the "System requirements" on page 18.
- OL Connect Version 2024.2 can be installed under a regular user account with Administrator privileges., see "User accounts and security" below.
- OL Connect **must** be installed on an NTFS file system.
- OL Connect requires **Microsoft .NET Framework 4.5** (or later) already be installed on the target system.
- Connect 2019.1 requires updated Connect License and/or Update Manager.
  See "Upgrading from previous OL Connect versions" on page 55 for details.
- In order to use the **automation features** in Version 2024.2, **OL Connect Workflow 2024.2** will need to be installed.
  This can be installed on the same machine as an existing PlanetPress® Suite 7.x installation or on a new computer.
  For more information, please see "Information about OL Connect Workflow" on page 74.

  If Workflow installation finds that .NET 4.6.2 (or later) is not already installed, it will prompt you to install this manually.

User accounts and security

Windows user account

Connect requires local Windows Administrator rights when installing the software and activating the software license. This is to allow read/write access to protected Windows folders and registry entries.

Note: Installing as the *Local System* account is not supported.

Once installed Connect requires only standard Windows user credentials to run.

The following links contain the details as to when and where Windows Administrator rights are required:

- Connect Installation: "Installation Wizard" on page 25
- Activating Connect: "Activating OL Connect" on page 47

Permissions for OL Connect Designer

OL Connect Designer does not require any special permissions to run besides that of a regular program.

It does not require administrative rights and only needs permission to read/write in any folder where templates or data mapping configurations are located .

If generating Print output, OL Connect Designer requires permission on the printer or printer queue to send files.

Permissions for OL Connect Server

The OL Connect Server module, used by the *Automation* module, requires some special permissions to run. These permissions are set during installation, in the *Engine Configuration* portion of the "Installation Wizard" on page 25, but it can also be configured later by modifying permissions for the service. To do this:

- In Windows, open the Control Panel, Administrative Tools, then Services (this may depend on your operating system).
- Locate the service called Serverengine_UUID , where UUID is a series of characters that depend on the machine where the software is installed.
- Right-click on the service and select *Properties*.
- In the *Connection* tab, define the account name and password that the service should use. This can be a local account on the computer or an account on a Windows Domain. The account must have administrative access on the machine. It should also correspond to the user account set up in *Worfklow*.

OL Connect Server user accounts

By default, authentication is enabled on the Connect Server. During a new installation the OL Connect Server's default authentication must be configured by specifying a user name and password. The default username for new installations is **olc-user**.
More user accounts can be configured in the Server Configuration Tool (see "Security and Users Settings" on page 80).
In any Connect Designer that uses a secured Connect Server, an authenticated user account must be specified via the Designer's Preferences (see the Connect Servers preferences sub-section of the Designer Preferences dialog).

Note that prior to OL Connect version 2020.2, only one user account could be configured on a Connect Server. The default username was **ol-admin** and the default password was *secret*.

Installing OL Connect on machines without internet access

Installing OL Connect2024.2 in offline mode requires some extra steps. These are listed below.

Updating Connect

Updating to OL Connect 2024.2 from earlier Connect version

In order to update OL Connect to 2024.2 it is first necessary to update the OL Connect license and Update Manager .

For further details on how to upgrade the OL Update Manager to the latest version and update your OL Connect License see the Update Manager 1.9 - Upgrade Guide.

For full details on how update OL Connect see "Upgrading from previous OL Connect versions" on page 55.

Initial OL Connect installation

GoDaddy Root Certificate Authority needs to be installed

In order to install OL Connect, it is necessary for the GoDaddy Root Certificate Authority to be installed (G2 Certificate) on the host machine and for this to be verified online. When a machine hosting the installation does not have access to the Internet, the installation will fail because the verification cannot be performed. To solve this problem one must first ensure that all Windows updates have been installed on the host machine. Once the Windows updates are confirmed as being up to date, then complete the following steps:

1. Go to https://certs.godaddy.com/repository and download the following two certificates to copy to the offline machine:
    - GoDaddy Class 2 Certification Authority Root Certificate - G2 - the file is gdroot-g2.crt
    - GoDaddy Secure Server Certificate (Intermediate Certificate) - G2 - the file is gdig2.crt
2. Install the certificates: Right mouse click -> Install Certificate, and follow the steps through the subsequent wizard.
3. Now copy the OL Connect installer to the offline machine and start the installation as normal.

Windows certificate validation - Certificate Revocation List retrieval should be switched off

For your security Upland Objectif Lune digitally signs all relevant files with our own name and certificate. The integrity of these files is checked at various times by different, context related, methods. One of these checks, done during the installation process, uses the Windows certificate validation check.

The Windows certificate validation process not only checks the integrity of a file against its signature, but also usually checks if the certificate itself is still valid. That check is done against the current Certificate Revocation List (CRL), which needs to be retrieved from the internet. However, if the machine in question does not have internet access, the retrieval of the CRL must fail, which will lead to subsequent validation issues.

To circumvent such issues it is **highly recommended** to switch off the CRL retrieval prior to installing Connect on machines without internet access. There is no security risk associated with this, as the CRLs would never be retrievable without internet access anyway. Advantage of the switch will not only be found during the installation and operation of Connect, but also in some speed improvements for any application which use signed binaries.

To switch off CRL retrieval on the computer, complete the following steps:

1. Open the “Internet Options” via the Control Panel.
2. Select the “Advanced” tab and scroll down to “Security” node.
3. Uncheck the entry “Check for publisher’s certificate revocation” under that node.
4. Click the OK button to close the dialog.
5. Re-start the computer.

Installation Wizard

Updating from Connect versions predating 2019.1

In order to update OL Connect to 2024.2 from Connect versions prior to 2019.1 it is first necessary to update the Connect License.
For details on how to upgrade the Connect License see "Users of OL Connect prior to 2019.1" on page 55

Starting the OL Connect installer

The OL Connect installer is supplied as an executable file.

Double click on the executable file and after a short pause the Setup Wizard will appear to guide through the installation steps.

Note: OL Connect **requires** prior installation of Microsoft .NET Framework 4.5.
For a full list of other prerequisites, see "Installation prerequisites" on page 22.

Note: It is recommended to install and use OL Connect Designer and Server under the same user account. If you install and run OL Connect Designer and Server under different user accounts (for example, install as *User1* and run Designer as *User2*), account permission issues may occur.

Running the Installation with extra logging

The installer can be run with enhanced logging options, if needed.
To do so, run the OL_Connect_<<Edition>>_2023.2.n.nnnnn_bnnnn.exe (replace <<Edition>> with either Enterprise, Professional or Desktop) from the command line with one of the following command line options:

- OL_Connect_<<Edition>>_2023.2.n.nnnnn_bnnnn.exe --**verbose**

  This adds extra debugging style logging to the installation process.

- `OLConnect_<<Edition>>_2023.2.n.nnnnn_bnnnn.exe --`**`trace`**

  This adds full trace style logging to the installation process. The log file this produces will be very large, as this option logs everything.

Prerequisites Installation

The installer will check for prerequisite technologies as the first step in the installation process. If this check finds some technologies are missing, it will install those technologies, before continuing with the installation.

Welcome screen

After any prerequisites are installed, the installer Welcome screen appears.
Click **Next** to continue with the installation.

If the installation is an upgrade over a pre-existing OL Connect installation, the installer will first uninstall the earlier version.

If you would like to retain the usage information from that pre-existing OL Connect installation, do not select the **Remove User data** checkbox option.

For information about exactly what data would be saved or deleted, please see "Pre-existing User Data" on page 58.

Switching to a different edition

When switching to a different edition, for example from the Professional to the Enterprise edition, the installer may indicate that the edition to be installed is not the same as the one for which the license is valid. In that case, the license file must first be removed from the following folder:

C:\ProgramData\Objectif Lune\OL Connect\licenses

License Agreement

The next page displays the End User License Agreement, which needs to be read and accepted before clicking **Next**.

Component Selection

After clicking the Next button, the Component Selection page appears, in which the different components of OL Connect can be selected for installation.

The options are:

- **Base**: The installation files required for any OL Connect installation. This component is not optional.
- **Designer**: The Designer module (see The Designer) can be installed standalone (with no other installed modules) on as many machines as you like. It does not require a license to run as a standalone designer tool . This allows any number of people to use the Designer for creating jobs, but without production capabilities such as automation and commingling. The Designer module is optional, but it is recommended that it always be installed.
    - **Messenger**: The Messenger Service that allows connection between OL Connect's Designer and Workflow. Recommended for all production installations.
- **Server**: The Connect Server back-end that provides Connect production capabilities such as production content creation (print output, HTML content for emails and web pages), automation, commingling and picking. It is also referred to as the Connect Master Server in Connect clustered environments.

> **Note:** (Enterprise edition only) When either the Designer or the Server component is selected for installation, the **AFPmerge** tool is installed as well. This command line tool can embed resources in AFP data files and merge multiple AFP data files into one AFP file. For information about its use, see: .

- **OL Connect Server Extension** (Enterprise edition only): A Client server that is subservient to the main OL Connect Master Server module. When a Client server is installed it communicates with the Master server in order to shares tasks with it. Such an installation assumes that the **Connect Server** (the Connect Master Server) has previously been setup on another machine, and that the database option "***Allow remote client access***" option were selected during that installation.

  Before installing the software, make sure that both TCP/IP ports 3306 and 9340 are open on the Connect Master Server and Connect Extension Server, in both the Inbound and Outbound Firewall Rules. Access within the Private and Domain profiles is sufficient.

  It is recommended your firewall blocks access to port 3306 from external requests as it may represent a security risk if the machine is open to the internet!

  For further information refer to the **Binding and Root access on the Master server instructions** in "Server Clustering" on page 98.

  > **Note:** Only one of the **Server** or **Server Extension** can be installed on a single machine, not both.

- **Print Manager** (Enterprise edition only): The Print Manager module (see Print Manager) is ***required*** for handling IPDS print output, but may also be optionally installed for managing PCL and PostScript print output.
  The **Print Manager** can be installed standalone (so long as the **MariaDB component** is included in the installation) and can be installed on more than one machine.
- **MariaDB Server**: A supplied MariaDB database used by OL Connect.

  The database is used for referencing temporary Connect files and for sorting temporarily extracted data, and similar.

  > **Note:** When performing an upgrade installation, if the MariaDB version has not significantly changed, then no attempt will be made to upgrade the database

content.
If there is a significant MariaDB version change, the database content will be upgraded, so that it will continue to work with the new MariaDB version.

A pre-existing MariaDB, MySQL or Microsoft SQL server (referred to as an ***external*** database, in this documentation) *could* be used instead, for the same purposes. The *external* database could reside on the same computer or on a separate server.
If you wish to make use of an *external* database, please make sure the **MariaDB** option is not selected.

Caution: If you chose **not** to install the supplied MariaDB database, and instead opt for using a pre-existing (*External*) database then you yourself must ensure that the *External* database is accessible to Connect.

Upland Software, Inc. will take no responsibility for setting up database connections to any but the supplied MariaDB database.

See "Database Considerations" on page 9 for more information about setting up *external* databases.

Note: (Enterprise edition only): All instances of **OL Connect Server** (Master) and **OL Connect Server Extension** (Clients) must use the same instance of MariaDB. Whilst it is *possible* for each separate client installation to have its own MariaDB instance, doing so will prevent the Servers from functioning together within a "Server Clustering" on page 98 environment.

The single MariaDB instance can be on any machine, however, whether it be the Server (master) or one of the Server Extension (client) machines.

- **Destination folder**: This is the location where Connect components are to be installed. Use the Browse button to navigate to a folder other than the default, if required.

Note: The installation path cannot contain any non ASCII characters (such as Asian language Unicode characters). Nor can it contain characters that Windows disallows in filenames (such as '?', '>' or trailing spaces).
If an invalid character is entered, the Installation Path entry box will turn red and a description of the error will be displayed in the information area.

The installer calculates how much disk space is required for installing the selected components, along with how much space is available.

- **Total Required Space** : Displays the amount of disk space required for the selected components.
- **Space Remaining**: Displays the amount of space available after installation on the drive currently in the Installation Path.

OL Connect Service Configuration

The **Service Configuration** page is for setting the Microsoft Windows Account that the *Connect Service* component will use.

- **Log on as**: Defines the Windows user account and password that the **Connect Server** services will use.

  Note: The Windows user account must have access rights to all local and network resources required for production, as well as Windows "*Log on as a Service*" rights.

  The Windows user account selection entered here should be recorded for future use, as the "Security and Users Settings" on page 80 dialog can only ever be executed through the user account specified on this page.

  - **Account**: The Windows user account that the service uses to login. If the machine is within a domain, use the format `domain\username`.
    This account must be an existing Windows profile with local Administrator rights.

    Note: Installing as the *Local System* account is not supported.

  - **Password**: The password associated with the selected user.

    Use the  eye icon to toggle between displaying or masking the password entry.
    The password is not validated for password strength, so any entry is acceptable.

  - **Validate Account** button: Click to verify that the entered account and password combination is correct and that the service is able to login.

> **Note:** This button *must* be clicked and the user validated before the **Next** button becomes available.

- **Start service when installation is complete** checkbox: Select this option to have the service start upon installation completion (which is the default).
  If unchecked, the Service will start upon machine reboot.

OL Connect Server Connection

Set the Connect **Server Connection** internal username and password.

The **Server Connection** settings will be slightly different depending upon whether **Connect Server** or **Connect Server Extension** was selected for installation (Enterprise edition only).

The options available are as follows:

- **Host**: This option is only available if **Connect Server Extension** was selected for installation.
  Enter the machine name or IP Address where the Connect Master Server resides.There is no requirement for the **Master** and **Extension** servers to belong to the same IP subnet.

  IP subnetting is beyond the scope of this documentation, but more information can be found here: https://en.wikipedia.org/wiki/Subnetwork.
- **Port**: Enter the port to use to communicate with the Connect Server.
  By default the Connect Server controlled by the *OLConnect_Server* service communicates through port 9340.
- **User**: Enter the internal username for connection to the OL Connect Server.
  The default username for new installations is **olc-user**.
- **Password**: The password associated with the selected user.

  Use the  eye icon to toggle between displaying or masking the password entry.
  The password is not validated for password strength, so any entry is acceptable.

Note that prior to OL Connect version 2020.2, only one user account could be configured on a Connect Server. The default username was **ol-admin** and the default password was *secret*.

Database Configuration

The Default **Database Configuration** page appears if the supplied *MariaDB* module was selected for installation in the *Product Selection* screen. It defines the administrative root password for the MariaDB server as well as which port it uses for communication.

The installer will automatically configure the Connect *Server* to use the supplied password and port.

- **Port**: The port on which MariaDB will expect requests to come though, and through which it itself responds.
  A check is run to confirm whether the specified TCP\IP Port Number is available on the local machine. If it is already being used by another service (generally, an existing MySQL or MariaDB installation), the number is highlighted in red and a warning message is displayed.

  > **Note:** The MariaDB database controlled by the *OLConnect_MariaDB* service communicates through port 3306 by default.

- **Root password**: Enter the password for the 'root', or administration account, for the MariaDB server.
  Use the  eye icon to toggle between displaying or masking the password entry.
  We recommend that the password be at least 8 characters long and contain at least one of each of the following, even though password selection strength is not enforced by the installer:
  - a lower case character (a, b, c ...)
  - an upper case character (A, B, C ...)
  - a numeric digit (1, 2, 3 ...)
  - a punctuation character (@, $, ~ ...)

  For example: "This1s@K"

  > **Note:** When updating from an earlier Connect version, the appropriate MariaDB password **must** be entered or the update will fail.
  >
  > If the password is subsequently forgotten, then MariaDB must be uninstalled and its database deleted from disk before attempting to reinstall.

- **Allow remote client access** checkbox: Click to enable external access to the MariaDB server.

  Note: This option is required if setting up clustering, or if the MariaDB Server will need to be accessed from any other machine

  It will also be required if the MariaDB database is on a separate machine to this OL Connect installation.

  Tip: This option may represent a security risk if the machine is open to the internet.

  We heavily recommended that your firewall is set to block access to port 3306 from external requests.

- **Username**: Enter the MariaDB user name that will be associated with OL Connect. The default username for new installations is **olconnect**.
- **Password**: The password associated with the selected user.

  Use the  eye icon to toggle between displaying or masking the password entry. The password is not validated for password strength, so any entry is acceptable.

Configuring External Database Connection

The **Database Connection** page appears if the supplied MariaDB module was not selected for installation. This page is for setting up the connection to an existing External database.

- **System**: Select the database type to use for the OL Connect Engine. Currently only MariaDB, MySQL and Microsoft SQL Server are supported.
- **Host**: Enter the IP Address or alias of the server where database resides.
- **Database Instance Name**: Enter an existing Microsoft SQL Server's instance name. This option only applies to existing Microsoft SQL Server instances, and not for MariaDB or MySQL.
  Note that the MS SQL Server instance name must meet Microsoft's requirements.
- **Port**: Enter the port on which the database server expects connections.
  For MariaDB and MySQL, this is **3306** by default.
  For Microsoft SQL Server it is **1433** by default.
- **Schema**: Enter the name of the database into which the tables will be created.
  The standard Connect schema name is "olconnect" by default.

- **Username**: Enter the user account of a user with database administrative rights. Administrative rights are required since tables will need to be created/modified/dropped in the database.
  If accessing a database on a different machine, the server must also be able to accept non-local TCP connections and the user account must also be configured to accept remote connection.
  For example, the "root" MySQL user entered as root@localhost is not allowed to connect from any other machine than the one where MySQL is installed.
- **Password**: Enter the password for the above user account. For MySQL the appropriate password **must** be entered or the Connect installation will fail.
- **Use Windows authentication**: The account of the currently logged in user who launched the installation will be used to perform the validation and configuration of the database.
  This option is only available when Microsoft SQL Server is selected.

  Caution: If this option is enabled, OL Connect cannot be used with any Windows user other than the user who performed the installation.
- **Encrypt Connection** checkbox: Check to enable encrypted connections to the external database.

  The secure connection to MySQL is for the "olconnect" schema.

  Note: It is not in the scope of the Connect installer to configure the MySQL database Server to accept SSL connections. This must be done prior to the installation of Connect.

  By default, the connection will not verify the server certificate (verifyServerCertificate=false), which would allow connecting to a server using a self-signed certificate. If such a certificate is required, then this setting can be changed after installation within the Database Connection preferences (which can be accessed from either the "Server configuration settings" on page 76 tool, or the Designer Preferences window).

- **Test Connection** button: Click to verify that the information provide into previous fields is valid by connecting to the database.

Note: This test does not check whether the remote user has READ and WRITE permissions to the tables under the objectiflune schema. It is solely a test of database connectivity.

Ready to install

This page confirms and lists the installation selections made.

If components have been selected which have a shortcut associated with them (Designer, Print Manager, Server) then you will presented with the option to **Create desktop shortcuts**. Select if you wish for desktop icons to be created.

Click **Install** to start the installation itself. This process can take several minutes.

Installation Finished

This screen describes a summary of the components that have been installed.

- **Configure update checks** checkbox: This option is enabled by default. It causes the **Product Update Manager** to run after the installation is complete. This allows configuring OL Connect to regularly check for entitled updates.
  Note: this checkbox may not be available in the event that an issue was encountered during the installation.

When ready, click the **Finish** button to close the installation wizard, and initialize the Product Update Manager, if it was selected.

The Product Update Manager

If the **Configure Update Check** option has been selected, a message will be displayed after clicking "*Finish*" in the setup. The message details the information that needs to be sent back to Upland Software, Inc. in order to determine when/if the software needs updating.

Click "Yes" to install or open the Product Update Manager where the frequency with which the updates can be checked and a proxy server (if required) can be specified.

Note: If the Product Update Manager was already installed by another Upland Software, Inc. application, it will be updated to the latest version and will retain the settings previously specified.

Select the desired options and then click **OK** to query the server and obtain a list of any updates that are available for your software.

- Note that the Product Update Manager can also be called from the "***Objectif Lune Update Manager***" option in the Start menu.
- It can be uninstalled via Control Panel | Programs | Programs and Features.

Product Activation

After installation, it is necessary to activate the software. See "Activating a License" on page 45 for more information.

Before activating the software, please wait 5 minutes for the database to initialize. If the software is activated and the services rebooted too quickly, the database can become corrupted and require a re-installation.

Running OL Connect installer in Silent Mode

Updating from Connect versions predating 2019.1

In order to update OL Connect to 2024.2 from Connect versions prior to 2019.1 it is first necessary to update the Connect License.
For details on how to upgrade the Connect License see "Users of OL Connect prior to 2019.1" on page 55

General information

OL Connect can be installed from the command line in "*silent mode*" to allow for scenarios such automated installations during company wide roll-outs, or to allow for unattended out-of-hours updates. The trigger for the Connect Installer to run in silent mode is a text file with the fixed name **installProperties.ini** located in the same folder as the OL Connect installation executable file.

How to prepare the **installProperties.ini** file is detailed in the following sections.

Installation Properties file

The basic rules for the **installProperties.ini** file are:

- Comment Lines start with the semi-colon character ';'
  Example: `; The options to configure an external database`

- The properties are listed in **Key = Value** pair format.
  Example: `product.ServerExtension = false`
- Quotes are used for path strings, but not for other string types
  Example: `path = "c:\Program Files\Objectif Lune\OL Connect"`
- Property values are case insensitive

The installation settings fall into three distinct categories:

- "[Logging]" below for setting the installation logging options.
- "[Installation]" on the facing page for selecting what gets installed.
- "[Uninstall]" on page 41 handles properties related to product Uninstallation. These also impact Maintenance mode.

[Logging]

This section handles **Silent Installer** logging options.

The logging Key pairs are as follows:

- **verbose**: Boolean (Default: `false`)
  A basic log is always created by the installer, with or without the verbose option. The verbose option is more suitable for debugging purpose.
  If set to true, then a verbose log file is created in the logging path specified in the INI file.
  If no logging path is specified in the INI file, then the default one is used.
  If set to false, standard logging is done.
- **path**: String (Default: `%PROGRAMDATA%\Objectif Lune\Installation Logs`)
  Sets the folder to which the installation log will be written.
  Only the log folder should be specified here, not the log file name.

  Note: The log file name's format is set automatically and uses the format *Installer-YYYY-MM-DD-####.#.#.log*, where:

  - *YYYY-MM-DD* = The date the log was created
  - *####.#.#* = The OL Connect version number

  The file name for a maintenance installation begins with "Maintenance" rather than "Installer"

Example:

```
; Logging properties
[Logging]
verbose = false
path = "c:\temp\Silent Install"
```

[Installation]

This section handles various installation parameters as well as product selection.

The logging Key pairs are as follows:

- **product.<name>**: Boolean (Default: `false`)
  Each OL Connect product has its own entry, which can be set to true (to install) or false (to omit from installation).
  What products are available for installation is determined by which OL Connect branding is being installed. The products for OL Connect branding are as follows:
  - **product.Designer**
  - **product.PrintManager** (Enterprise edition only)
  - **product.Server**
  - **product.ServerExtension** (Enterprise edition only)
  - **product.MariaDB**
  - **product.Messenger**
- **path**: String (Default: `%PROGRAMFILES%\Objectif Lune\OL Connect`)
  Sets the installation root folder for the OL Connect applications.
- **RegisterService.connectServer**: Boolean (Default: `true`)
  Register the Server (or Server Extension in the Enterprise edition) services or not (such as in the case of a container).
- **server.username:** String (Default: the current user/domain installing the service)
  Determines the domain and username to be used when configuring the Server (or Server Extension in the Enterprise edition) service.

  The username can use the following syntax formats:
  - username
  - domain\username
    (Note: the backslash between the domain and user names needs to be escaped by another backslash. For example: `server.username = ourcompany\\pbrown01`)
  - username@domain

- **server.password**: String (Default: there is no default for this setting)
  Password to use when registering the Server (or Server Extension in the Enterprise edition) service.
- **database.configure**: Boolean (Default: `true`)
  If set to "false", then the database configuration is skipped.

  > **Note:** If database configuration is skipped (`database.configure = false`), then none of the `database.xxx` properties below are required, and these properties will be ignored, even in they are included in the INI file.

- **database.system**: String, Optional (Default: there is no default for this setting)
  Entry needs to be from one of the following options: **mariadb**, **mysql**, **mssqlserver**

  > **Note:** If `product.MariaDB = true` has been set:
  >
  > - This setting becomes optional. Otherwise it is required.
  > - The value is *required* to be `mariadb`, if the value is to be provided.

- **database.host**: String, Optional (Default: there is no default for this setting)
  If `product.MariaDB = True` has been set, this value is required to be set to `localhost`, if provided.
- **database.port**: Numeric, Optional (Default: MariaDB's default port, 3306)
  The database engine port.
  The required entry depends upon the selection made in `database.system`.
  If `product.MariaDB = True`, then the port should be set to 3306.
- **database.rootpassword**: String (Default: there is no default for this setting)
  Database root password.
  There is no default value, and if this is left unspecified the installation will fail.
- **database.remoteaccess** (Enterprise edition only): Boolean (Default: depends upon whether the Connect Server is installed.
  If the property `product.Server = true`, then the default is false.
  If `product.Server = false` or is left unspecified, then the default is `true`)
  When set to `true` the database will be configured to accept connections from systems other than localhost.
- **database.username**: String (Default: `olconnect`)
  The username that OL Connect will use to connect to the database.
- **database.password**: String (Default: there is no default for this setting)
  The password that OL Connect will use to connect to the database.

There is no default value, so if this is left unspecified, then the installation will fail.

- **database.instance**: String, Optional (Default: there is no default for this setting)
  Only valid if `database.system = mssqlserver`.
- **database.schema**: String (Default: there is no default for this setting)
  Specifies the database schema to use. Required. (Optional if `product.MariaDB = true`)
- **database.encryptedconnection**: Boolean (Default: `False`)
  Specifies the database schema to use.
  (Optional if if `product.MariaDB = true`)
- **server.connection.configure**: Boolean, Optional (Default: `True`)
  If set to `False`, then the server connection configuration is skipped.
- **server.connection.user**: String (Default: `olc-user`)
  The server connection username.
- **server.connection.password**: String (Default: there is no default for this setting)
  The server password. Required if `server.connection.configure = true`.
- **server.connection.port**: Numeric (Default: 9340)
  The server port number.
- **server.connection.host** (Enterprise edition only): String (Default: there is no default for this setting)
  The server host. Required only for the Server Extension if `server.connection.configure = true`.
- **desktopShortcuts**: Boolean (Default: `False`)
  Specifies whether desktop shortcuts are to be added or not.
  This flag only takes effect if components were selected which have a shortcut associated with then (Designer, Print Manager (Enterprise edition only), Server). If no such were selected, then this flag will have no effect.
- **Language**: String, Optional
  Sets the OL Connect application language settings.
  Supported user locales (as language code) are as follows:
  - English: en
  - French: fr
  - German: de
  - Italian: it

- Japanese: ja
- Spanish: es
- Portuguese (Brazil): pt
- Chinese (PRC/TW): zh
- Korean: ko

- **Locale**: String, Optional
  Sets the OL Connect application's region using a country code. For example: US, UK, DE, CH.
  If this property is not set, the locale defaults to the system locale, and if that is not found, the selected installation language will determine a default locale.

Example:

```
; Installation settings
[Installation]
product.Designer = true
product.Server = true
product.PrintManager = true
product.ServerExtension = false
product.MariaDB = true
product.Messenger = true
RegisterService.connectServer = true
server.username = Administrator
server.password = ObjLune
server.connection.user = olc-user
server.connection.password = secret
database.rootpassword = @Admin2022
database.username = olconnect
database.password = @Admin2022
database.remoteaccess = true
desktopShortcuts = true
path = "c:\Program Files\Objectif Lune\OL Connect"
Language = fr
Locale = FR
```

[Uninstall]

This section handles properties related to Uninstallation, but also Maintenance mode installations.
These options have no effect at all if OL Connect is not present on the system.

The logging Key pairs are as follows:

- **remove**: Boolean (Default: `False`)
  If the present version of the installer is already installed, this property defines the installer behaviour.
  The installer will perform a *Remove MSI* action on OL Connect if `remove = true`, whilst a *Modify MSI* action will be performed if `remove = false`.

Note: This option has no effect if the product is not installed on the current system

Note: If the *Remove* action is taken, then the equivalent of an uninstall is done, while a *Modify* action will change the components installed on the system based on the ones defined in the INI file [Installation] section, allowing removal or addition of components in the current installation.

- **keepdata**: Boolean (Default: `True`)
  Allows the user to specify if they wish to keep or remove user data (located under *%PROGRAMDATA%\Objectif Lune\OL Connect* when performing a product uninstall.

Example:

```
; Uninstallation/Repair properties
[Uninstall]
remove = true
keepdata = true
```

Properties file examples

Simple Connect installation example

Here is an example of a complete **installProperties.ini** file for a relatively simple OL Connect installation.

```
; OL Connect silent installer properties

; Logging properties
[Logging]
verbose = false
path = "c:\ProgramData\Objectif Lune\Installation Logs"
;

Installation settings
[Installation]
product.Designer = true
product.Server = true
product.PrintManager = true
product.ServerExtension = false
product.MariaDB = true
product.Messenger = true
RegisterService.connectServer = true
server.username = Administrator
server.password = ObjLune
server.connection.user = olc-user
server.connection.password = secret
database.rootpassword = @Admin2022
database.username = olconnect
database.password = @Admin2022
database.remoteaccess = true
desktopShortcuts = true
path = "c:\Program Files\Objectif Lune\OL Connect"

;Optional uninstallation settings
[Uninstall]
remove = true
keepdata = false
```

Server Extension installation example

The following is an example of a complete **installProperties.ini** file for a Server Extension installation (Enterprise edition only).

```
; OL Connect silent installer properties for Server Extension installation

; Logging properties
[Logging]verbose = false
path = "c:\ProgramData\Objectif Lune\Installation Logs"

; Installation settings
[Installation]
product.Designer = false
product.Server = false
product.PrintManager = false
product.ServerExtension = true
product.MariaDB = false
product.Messenger = true
RegisterService.connectServer = true
server.username = Server EX2
server.password = objlune
database.system = MariaDB
database.host = 192.168.108.50
database.username = root
database.password = Admin@123
database.schema = olconnect
database.encryptedconnection = false
database.rootpassword = Admin@123
database.remoteaccess = true
desktopShortcuts = true
server.connection.configure = true
server.connection.host = 192.168.108.50
server.connection.port = 9340
server.connection.user = ol-admin
server.connection.password = secret
path = "c:\Program Files\Objectif Lune\OL Connect"

; Optional uninstallation settings
[Uninstall]
remove = true
keepdata = false
```

Exit Codes

Success

- 0 = Installation completed successfully / no specific error code was returned.

Pre-Installation Check (200s)

- 201: Operating system is not 64-bit
- 202: Windows Operating System is too old (pre-Windows 7)
- 203: Minimal UAC prerequisites were not met
- 204: Installation user did not have administrator rights

Silent installation properties (300s)

- 301: MariaDB product was selected, but no root password was supplied
- 302: MariaDB product was selected, but no user password was supplied

- 303: User provided database is to be used, but `database.system` property was missing
- 304: User provided database is to be used, but `database.system` property had invalid value
- 305: User provided database is to be used, but `database.host` property was missing.
- 306: database.instance property was used with a database system other than MS SQL Server
- 307: User provided database is to be used, but `database.username` property was missing.
- 308: User provided database is to be used, but `database.password` property was missing.
- 309: Connect server / server extension product was selected, but `server.connection.password` property was missing
- 310: Connect server extension product was selected, but `server.connection.host` property was missing

Upgrade errors (400s)

- 401: Some Connect applications were running and need to be closed before installation can proceed.
- 402: The installer brand does not match the brand of the OL Connect version currently installed. (PlanetPress)
- 403: The installer brand does not match the brand of the OL Connect version currently installed. (PReS)
- 404: The installer brand does not match the brand of the OL Connect version currently installed. (Printshop Mail)

License file validation (500s)

- 501: OL Connect license file is in older format
- 502: License Care Date does not allow installation of product
- 503: License brand mismatch with installer brand

Destination and selected product check (600s)

- 601: Server and Server Extension both were selected to be installed.
  Only one of the two may be installed on any one system.

- 602: No component was selected to be installed
- 603: Destination folder is invalid or there is too little disk space available

Installation aborted (700s)

- 701 - 725: Installation was aborted due to user cancellation

Service stop error (800s)

- 801: OLConnect_MySQL/OLConnect_MariaDB service could not be stopped during uninstallation

Activating a License

OL Connect and OL Connect Workflow both come with individual 30 day trial license periods during which time it is not necessary to have a commercial license to run the applications.

This allows time for reviewing the applications and for organizing a commercial license. If a modification to the trial license is required, such as to allow an extension to the trial period, or for extra functionality, then a new activation code will need to be requested.

For more information about the features available in different licensed editions of OL Connect, see OL Connect Editions Comparison.

Obtaining the OL Connect Magic Number

To obtain an activation file the OL™ **Magic Number** must first be retrieved. The Magic Number is a machine-specific code that is generated based on the computer's hardware and software using a top-secret Upland Objectif Lune family recipe. Each physical computer or virtual computer has a different Magic Number, and each requires a separate license file to be functional.

To get the OL Connect **Magic Number** open the **OL Connect Software Activation** application.

- Open the **Start Menu**
- Click on **All Programs** and browse to the **Objectif Lune** folder.
- Open the **OL Connect Software Activation** shortcut.
- The **OL Connect Software Activation** application consists of the following:

- **License Information** subsection:
  - **Magic Number**: Displays the OL Connect Magic Number.
  - **Copy the magic number to the clipboard**: Click to copy the Magic Number to the clipboard. It can then be pasted in the activation request email using the Windows CTRL+V keyboard shortcut.
- **Licensed Products** subsection:
  - **Name**: Displays the name of the application or module relevant to this activation.

    The Information button provides detailed information about the application or module license.
  - **Serial Number**: Displays the trial license serial number or the activation serial number if the product has been activated in the past.
  - **Expiration Date**: Displays the date when the activation will expire, or the current date if the product is not activated.
- **End-User License Agreement** - *Appears only when loading a license file*:
  - **License**: This box displays the EULA. Please note that this agreement is legally binding.
  - **I agree**: Select to accept the EULA. This option **must** be selected to install the license.
  - **I don't agree**: Select if you do not accept the EULA. You cannot install the license if this option is selected.
- **Load License File**: Click to browse to the Connect license file (**.olconnectlicense**), once it has been received.
- **Install License** - *Active only when a license file is Loaded*: Click to install the license and activate the software.
- **Close**: Click to cancel this dialog.
  Even if a license file has been Loaded, it will not be installed if this dialog is Cancelled before the **Install License** button was clicked.

Requesting a license

After getting the Magic Number, a license request must be done for both OL Connect (with the Enterprise version: for both Master and Extension Servers, if using a Clustered environment) and Workflow:

- **Customers** must submit their Magic Number and serial number to Upland Objectif Lune via the Web Activations page: http://www.objectiflune.com/activations. The OL Customer Care team will then send the OL Connect license file via email.
- **Resellers** can create an evaluation license via the Upland Objectif Lune Partner Portal by following the instructions there: http://extranet.objectiflune.com/

Note that if you do not have a serial number, one will be issued to you by the OL Activations team.

Accepting the license will activate it, after which the OL Connect services will need to be restarted. Note that in some case the service may not restart on its own. To resolve this issue, restart the computer, or start the service manually from the computer's Control Panel.

Activating OL Connect Workflow

OL Connect Workflow uses the same licensing scheme as OL Connect. There are two ways of activating the license for Workflow after saving it to a suitable location:

- If only OL Connect Workflow is installed, double-click on the license for the OL Connect Workflow License Activation dialog to open. Applying the license here activates all of the Workflow components.
- If you have both OL Connect Workflow and OL Connect installed, it will not be possible to double-click on the license file as this will always open the OL Connect Activations Tool. Instead, open OL Connect Workflow manually and apply the license through the activations dialog within.

Activating OL Connect

To activate OL Connect, simply save the license file somewhere on your computer where you can easily find it, such as on your desktop. You can then load the license by double-clicking on it, or through the **OL Connect Software Activation** tool.

Activating the OL Connect license requires the user to have local Windows Administration rights.

- Using a user profile that has local Windows Administration rights, open the **Start Menu**
- Click on **All Programs**, then browse to the **Objectif Lune** folder.
- Run the "**OL Connect Software Activation**" tool.

- Click the **Load License File** button, and browse for the .olconnectlicense file you received from Upland Software, Inc..
- Read the EULA and click the *I agree* option to accept it.
- Click **Install License** to activate the license. The license will then be registered on the computer and you will be able to start using the software.

Caution: After installation message will appear warning that the Server services will need to be restarted. Just click OK to proceed.

Reactivating your license

You will need to request a new license if:

- The **magic number has changed** on the workstation the license is activated. The magic number can change following hardware updates or updates of the operating systems. When that happens, the software prompts you to enter a valid activation code.
- You are transferring the license to a **new workstation**.

As a customer, log in at the Web Activation Manager with your email address, customer ID and password to reactivate your license. For further instructions, read the Web Activation Guide (available for download from the Web Activation Manager).

If you are a reseller/partner:

1. Login at https://extranet.objectiflune.com/index.aspx.
2. Click “Reseller Licenses”.
3. Go to the “Request an NFR” section; select the product from the drop-down list, click “Select license”.
4. Enter the new Magic Number and click Submit. You will receive an email shortly containing your activations file.

Migrating to a new workstation

The purpose of this document is to provide a strategy for transferring a OL Connect (and/or Workflow) installation to a new workstation.

Before installing the software

Before upgrading to a new version, even on a new workstation, consult the product's release notes to find out about new features, bug fixes, system requirements, known issues and much more.

- OL Connect Release Notes

You should also consult the following pages for some technical considerations before installing:

- "Network considerations" on page 14
- "Database Considerations" on page 9
- "Environment considerations" on page 12
- "Installation prerequisites" on page 22
- "Antivirus Exclusions" on page 7

Downloading and installing the software

In order to migrate to a new workstation, the software must already be installed on the new workstation. Follow the "Installation and activation" on page 21 guide to download and install the newest version of OL Connect on the new workstation.

If using Clustering in OL Connect Enterprise, please read the "Server Clustering" on page 98 page of this documentation for more details relevant to the installation.
Note that in a Clustering setup, both the Master and all Extensions must be upgraded to the same version.

Backing up files from the current workstation

The first step in migrating to a new workstation would be to make sure all necessary production files and resources are backed up and copied over to the new system.

> **Note:** Although it is not necessary to convert all of your documents when upgrading to the latest version, we strongly recommended doing so.
> It is considered "*Best Practice*" to convert the documents to the version installed and then re-send them to the Workflow Tools.

Backing up Workflow files

To save all Workflow-related files, backup the entire working directory:

`C:\ProgramData\Objectif Lune\PlanetPress Workflow 8`

Here are a few important points when transferring these files:

- If you are upgrading to the latest version of Connect, it is recommended to open each template in Designer, produce a proof making sure the output is correct. Then send the template with its data mapping configuration, Job and Output preset files to Workflow by clicking on **File > Send to Workflow...**
- If you still use PlanetPress 7 legacy documents, PTK files can be imported by clicking on the Workflow tool button at the top left corner of the Workflow tool interface. If copying the `PlanetPress Workflow 8` folder directly, it's important to delete any file with the .ps7 extension so as to refresh the PostScript file for the new workstation. Deleting the .ps7 files will make Workflow recreate them.
- The Workflow configuration file itself is named ppwatch.cfg, and is backed up with the folders. However, it needs to be re-sent to the Service to be used. To do this, rename the file to .OL-Workflow, open the file with the Workflow tool, and send the configuration.
- Locate Custom Plugins (.dll) from the below folder on the old workstation and import them onto the new workstation:
  `C:\Program Files (x86)\Common Files\Objectif Lune\PlanetPress Workflow 8\Plugins`
  To import the plugins:
  1. Start the Workflow Configuration Tool.
  2. Click on the Plug-in Bar.
  3. Click on the down pointing triangle under the **Uncategorized** group.
  4. Select **Import Plug-in** and select the .dll file.
- Import any external scripts used by the **Run Script** plugin, making sure they reflect the same paths as on the previous workstation
- Install any external application, executable and configuration files used by the External Program plugin, making sure they reflect the same paths as on the previous workstation
- Reconfigure local ODBC connections (i.e. create local copies of databases or recreate required DSN entries).
- Backup and import other custom configuration files, Microsoft Excel Lookup files, making sure they reflect the same paths as previously.

- Reinstall required external printer drivers and recreate all Windows printer queues and TCPIP ports.
- On the new workstation if the "TCP/IP Print Server" service is running in Windows, it is requested to disable that service so that it does not interfere with the Workflow LPD/LPR services.
- Configure the Workflow services account as in the previous installation. If accessing, reading and writing to network shares, it is recommended to use a domain user account and make it a member of the local Administrators group on the new workstation. Once the user account has been chosen:
    1. Click on Tools in the Workflow Configuration menu bar.
    2. Click **Configure Services**.
    3. Select the user account.
- If required, grant permissions to other machines (Designer clients and other servers) to send documents and jobs to the new server.
    - Click on Tools in the Workflow Configuration menu bar.
    - Click on **Access Manager**
    - Grant necessary permissions to remote machines.
    - Restart the Workflow Messenger service.
- Reconfigure the Workflow Preferences as previously by clicking on the Workflow button at the top left corner and clicking on Preferences:
    - Reconfigure the **Server Connection Settings** under **Behavior > OL Connect**.
    - Reconfigure each of the plugins, where necessary, under **Plug-in** as previously. Capture OnTheGo users may want to enable the **Use PHP Arrays** option under **Plug-in > HTTP Server Input 1**.
    - Send the configuration to the local Workflow service.

Backing up Connect Resources

The following resources are used by Connect and can be backed up from their respective folders:

- **Job Presets** (.OL-jobpreset):
  `C:\Users\[UserName]\Connect\workspace\configurations\JobCreationConfig`

- **Output Presets** (.OL-outputpreset):
  `C:\Users\[User-Name]\Connect\workspace\configurations\PrinterDefinitionConfig`
- **OL Connect Print Manager Configuration files** (.OL-ipdsprinter):
  `C:\Users\[UserName]\Connect\workspace\configurations\PrinterConfig`
- **OL Printer Definition Files** (.OL-printerdef):
  `C:\Users\[User-Name]\Connect\workspace\configurations\PrinterDefinitionConfig`
- **OMR Marks Configuration Files** (.hcf):
  `C:\Users\[UserName]\Connect\workspace\configurations\HCFFiles`

Where `[username]` is replaced by the appropriate Windows user name.

Tip: Actually, the path may not begin with 'C:\Users', as this is language-dependent. On a French system, for example, it would be 'C:\Utilisateurs'.

Type `%userprofile%` in a Windows File Explorer and press Enter to open the actual current user's home directory.

Other Resources

- **OL Connect Designer Templates**, **DataMapper** or **Package** files, copied from the folder where they reside.
- All PostScript, TrueType, Open Type and other **host based fonts** used in templates must be reinstalled on the new workstation.
- Import all **dynamic images** and make sure their paths match those in the old server.
- Make sure the new workstation can also access network or remote images, JavaScript, CSS, JSON, and HTML resources referenced in the Connect templates.

Secondary software and licenses

The following only applies to specific secondary products and licenses that interact or are integrated into the main product.

Image, Fax and Search Modules

- Reconfigure the Image and Fax outputs with the new host information.
- Import the Search Profile and rebuild the database in order to generate the database structure required by the Workflow.

OL Connect Send

- As of version 8.6 the Connect Send plugins are installed automatically with Workflow. If you are using an older version, run the OL Connect Send Plug-in Installer on the new Workstation to re-install the Connect Send plugins.
- Reconfigure the Server URL and port during the OL Connect Send Printer Driver setup.
- Re-run the OL Connect Send printer driver setup on client system and select the Repair option to point the clients to the new Server URL.

Configuring the Connect Engines

Any changes made to the Server preferences require the OLConnect_Server service to be restarted to take effect.

1. Stop the OLConnect_Server service from **Control Panel > Administrative Tools > Services > OLConnect_Server > Stop**.
2. Configure the Merge and Weaver Engines scheduling preferences as in the previous installation
    - Open the Server Configuration from: `C:\Program Files\Objectif Lune\OL Connect\Connect Server Configuration\ServerConfig.exe`
    - Configure the DataMapper, Merge and Weaver engines preferences (see "Parallel Processing preferences" on page 91). As of version 2018.1 these preferences include the minimum (Xms) and maximum (Xmx) memory utilization for the Server, Merge and Weaver engines.
    - Configure any other options for the Clean-up Service.
3. Now start the **OLConnect_Server** service

Configuring the Server Extensions

In the case where the OLConnect MySQL is installed on the new Master Server, it is important to reconnect all Server Extension systems to the new Master Server.

Perform the following action on each Server Extension:

1. Stop the OLConnect_ServerExtension service from **Control Panel > Administrative Tools > Services > OLConnect_ServerExtension > Stop**.
2. Open the Server Extension Configuration from: `C:\Program Files\Objectif Lune\OL Connect\Connect Server Extension\ServerExtension.exe`

3. Click on Database Connection and configure the JDBC Database connection settings so that the hostname points to the new Master Server.
4. Click on Scheduling and type in the location of the new Master Server.
5. Start the **OLConnect_ServerExtension** service.

Transferring software licenses

Once all the above resources have been transferred over to the new server, it is recommended to thoroughly test the new system - in **demo mode** - with sample files under normal production load to identify points of improvement and make sure the output matches the user's expectation.
Output generated at this point will normally bear a watermark which can be removed by transferring licenses from the old server to the new one.

- To transfer Connect and Workflow licenses, the user is usually required to complete a **License Transfer Agreement** which can be obtained from their local Customer Care department.
- If you want to transfer your licenses to the new machine right away, you may ask your local Customer Care department for a **30 day Transition activation** code for your *old* machine.
- Upgrades cannot be activated using the automated Activation Manager. Contact your local Customer Care department.

To apply the license file received from the Activation Team:

1. Ensure that all services are stopped on your old machine before activating and starting the services on the new machine. Attempting to run the software with the same license simultaneously will not only run into errors but it is a breach of our EULA.
2. Start the OL Connect Software Activation module:
   `C:\Program Files\Objectif Lune\OL Connect\Connect Software Activation\SoftwareActivation.exe`
3. Click on Load License File to import the license.OLConnectLicense.
4. Start the Software Activation module on the Extension servers, where applicable.
5. Click on Load License File to import the above same license.OLConnectLicense.
6. Restart the OLConnect_Server service and restart the OLConnectServer_Extension service on the Extension servers, where applicable.

7. The number of Expected Remote Merge and Weaver engines should now be configurable in the Connect Server Configuration module (`C:\Program Files\Objectif Lune\OL Connect\Connect Server Configuration\ServerConfig.exe`)

Uninstalling OL Connect from the previous workstation

It is recommended to keep the previous install for a few days until everything is completed. However, once your transition is successful and complete, the OL Connect software must be uninstalled from the original server. See "Uninstalling" on page 118.

Upgrading

This page provides information about Upgrading to OL Connect version 2024.2.

Upgrade information is detailed in the following pages:

- "Upgrading from previous OL Connect versions" below
- "Upgrading from PReS Classic" on page 61

Upgrading from previous OL Connect versions

Users of OL Connect prior to 2022

Users of any version of OL Connect prior to 2022 should see the page "Pre-existing User Data" on page 58 for information about exactly what data is saved or deleted.

Users of OL Connect prior to 2019.1

Users of OL Connect versions prior to 2019.1 should note that **Update Client 1.2.40** is a prerequisite for both OL Connect 2019.1 and Connect Workflow 2019.1 installations. Only Update Client 1.2.40 has the capacity to upgrade the OL Connect license to the newer format that is required by the installers of those products.

If you do not have Update Client version 1.2.40 installed already, then the next time you run your Update Client it will show that there is an update available of itself to Version 1.2.40 (or later).

Simply click on the “Install” icon  to initiate the upgrade.

For further details on how to upgrade the Update Client and update your Connect License see the Update Client 1.2.40 Upgrade Guide.

Note: An incomplete uninstall of OL Connect before a reinstall or upgrade to a newer version can lead to issues. See "Issue after erroneous or incomplete update or re-installation" on page 109.

Before you upgrade

Always backup before upgrading

It is recommended that you always backup your existing OL Connect preferences before upgrading to a new version. This will enable you to revert back to the previous version, in a worst case scenario in which the new version introduces issues with your existing production processes. Whilst the probability of such a worst case scenario is remote, it cannot hurt to take some simple precautions, just in case.

For instructions on how to do so, please see "Backup existing OL Connect version" on the next page.

Note: The scheduling settings were changed significantly in version 2019.2. Please make sure to record your current scheduling settings for reference before proceeding with an upgrade..

Recommendations

Before embarking on an upgrade, also follow these recommendations:

- Prior to updating your production environment, all updates to OL Connect/Workflow should be performed in a **development & test environment**. This is both to test the upgrade process and to test that your solution is still working as expected. Having a development & test environment minimizes the risk of failure and business impact.
- **Planning** the upgrade:
    - Perform the upgrade of your production server during off-peak hours when it least impacts business.
    - Prepare a rollback plan appropriate to your organization, which includes provisions for reverting in the case of catastrophic errors. This can be as simple as reverting to a snapshot or may be more involved on physical hardware.
    - Anticipate at least 1 hour of downtime to provide enough time for the installation and any rollback plan.
- Consult the "System requirements" on page 18 and "Installation prerequisites" on page 22 before the upgrade to ensure that your environment is supported. If not,

upgrading is not recommended.

- When possible, disable your **antivirus and anti-malware** software during the upgrade process. If it is not allowed by the security policies, please consider configuring the proper exceptions:
  - "Antivirus Exclusions" on page 7 (OL Connect
  - Workflow exceptions
- Read the OL Connect Release Notes. They provide information regarding enhancements in that release version (known issues, bug fixes, enhancements, new features, etc.)

Backup existing OL Connect version

It is recommended that you always backup your existing OL Connect preferences before upgrading to a new version. This will enable you to revert back to the previous version, in a worst case scenario in which the new version introduces issues with your existing production processes. Whilst the probability of such a worst case scenario is remote, it cannot hurt to take some simple precautions, just in case.

Backing up a virtual machine

Backing up a virtual machine installation is relatively straight forward. Simply take a snapshot of the virtual machine instance, prior to upgrading. This would save all the localized preferences and configurations.

Backing up a real machine

Backup these folders

- `C:\ProgramData\Objectif Lune\OL Connect\.settings\ConnectHostScope`
- `C:\Users\[UserName]\Connect\filestore`
- `C:\Users\[UserName]\Connect\workspace\configurations`
- `C:\Users\[UserName]\Connect\workspace\Designer\.metadata\.plugins\org.eclipse.core.runtime\.settings`
- `C:\Users\[UserName]\Connect\workspace\Server\.metadata\.plugins\org.eclipse.core.runtime\.settings`

Where `[username]` is replaced by the appropriate Windows user name.

Tip: Actually, the path may not begin with 'C:\Users', as this is language-dependent. On a French system, for example, it would be 'C:\Utilisateurs'.

Type `%userprofile%` in a Windows File Explorer and press Enter to open the actual current user's home directory.

Note that the installer is designed to keep these folders/files intact. Backing them up is simply a precautionary measure.

Additionally, these are only the folders that are natively managed by the installer. Back up every custom location/resource that may be important for the functionality of your solution.

Backup your database

If you want to be completely thorough and be able to exactly replicate your existing system, you should also backup your existing Connect database.

If the default (pre Connect 2022.1) MySQL database were being used as the Connect back-end database, we would recommend the MySQLDump tool be used for this. See for details on this utility program: mysqldump (https://dev.mysql.com/doc/refman/5.7/en/mysqldump.html).

Pre-existing User Data

The following scenarios display what happens to pre-existing User Data in a Connect upgrade.

Note: In regards to the MySQL (Connect version 2021.2 and earlier) or MariaDB (Connect version 2022.1 onwards) entries: these are only applicable if the OL Connect database component was installed in a previous Connect installation.

Scenario 1: Upgrading from OL Connect 2021.2 or earlier with Remove User Data CHECKED

- In all cases:
  - Files and folders are removed from the user data folder *C:\Users\<connectUser>\Connect* , where *<connectUser>* is the user that installed OL Connect.
  - Files and folders are removed from the following data folders:

        - *C:\ProgramData\Objectif Lune\OL Connect\.settings*
        - *C:\ProgramData\Objectif Lune\OL Connect\CloudLicense*
        - *C:\ProgramData\Objectif Lune\OL Connect\ErrorLogs*
        - *C:\ProgramData\Objectif Lune\OL Connect\LiquibaseUpdate*
    - Files are removed from the root of the data folder *C:\ProgramData\Objectif Lune\OL Connect*.
      If the folder is empty following this (i.e. no license or user folders were present) then the *C:\ProgramData\Objectif Lune\OL Connect* folder itself is removed.
    - License files as well as any content not listed above but found in the *C:\ProgramData\Objectif Lune\OL Connect* folder remain untouched.
- Additional cases:
    1. If MySQL was previously installed as an OL Connect component AND the database contains some user-defined schemas:
        - The native OL Connect schema is removed from the MySQL database.
        - The MySQL database files (*C:\ProgramData\Objectif Lune\OL Connect\MySQL*) are kept intact, as user-defined schemas mean that the user did not have only the OL Connect native schema content in their database.
            - A message at the end of the upgrade will advise the user that some non-OL schemas were found in the database, so the database files were not removed.
    2. If MySQL was previously installed as an OL Connect component AND the database does not contain any user-defined schemas:
        - The MySQL database files (*C:\ProgramData\Objectif Lune\OL Connect\MySQL*) are removed entirely.

Scenario 2: Upgrading from OL Connect 2021.2 or earlier with Remove User Data UNCHECKED

- In all cases:
    - The user data folder *C:\Users\<connectUser>\Connect* (where *<connectUser>* is the user that installed OL Connect) is retained, untouched.
    - All the files and folders under the data folder *C:\ProgramData\Objectif Lune\OL Connect* remain untouched.

- If MySQL was previously installed as an OL Connect component:
    - All schemas from the MySQL database are migrated to MariaDB, allowing the user to continue using their database content normally.
      NOTE: This might take some time during the installation, depending upon the size of the existing databases.
    - The MySQL database files (*C:\ProgramData\Objectif Lune\OL Connect\MySQL*) are also kept intact.

Scenario 3: Uninstalling OL Connect 2022.1 or later with Remove User Data CHECKED

- In all cases:
- Files and folders are removed from the user data folder *C:\Users\<connectUser>\Connect* , where *<connectUser>* is the user that installed OL Connect.
- Additional cases:
    1. If MariaDB was previously installed as an OL Connect component AND the database contains some user-defined schemas:
        - The native OL Connect schema is removed from the MariaDB database.
        - The MariaDB database files (*C:\ProgramData\Objectif Lune\OL Connect\MariaDB*) are kept intact, as user-defined schemas mean that the user did not have only the OL Connect native schema content in their database.
            - A message at the end of the upgrade will be displayed, stating some non-OL schemas were found in the database, so the database files were not removed.
    2. If MariaDB was previously installed as an OL Connect component AND the database does not contain some user-defined schemas:
        - The MariaDB database files (*C:\ProgramData\Objectif Lune\OL Connect\MariaDB*) are removed entirely.

Scenario 4: Uninstalling OL Connect 2022.1 or later with Remove User Data UNCHECKED

- In all cases:
  - Files and folders are removed from the user data folder *C:\Users\<connectUser>\Connect* , where *<connectUser>* is the user that installed OL Connect.
  - Files and folders are removed from the following data folders:
    - *C:\ProgramData\Objectif Lune\OL Connect\.settings*
    - *C:\ProgramData\Objectif Lune\OL Connect\Address Blocks* (introduced OL Connect 2024.2)
    - *C:\ProgramData\Objectif Lune\OL Connect\CloudLicense*
    - *C:\ProgramData\Objectif Lune\OL Connect\ErrorLogs*
    - *C:\ProgramData\Objectif Lune\OL Connect\LiquibaseUpdate*
  - Files are removed from the root of the data folder *C:\ProgramData\Objectif Lune\OL Connect*.
    If the folder is empty following this (i.e. no license or user folders were present) then the *C:\ProgramData\Objectif Lune\OL Connect* folder itself is removed.
  - License files as well as any content not listed above but found in the *C:\ProgramData\Objectif Lune\OL Connect* folder remain untouched.
- If MariaDB was previously installed as an OL Connect component:
  - All schemas from the MariaDB database are kept, allowing the user to use those database files if they reinstall the software.

Upgrading from PReS Classic

PReS Classic and OL Connect are very different products.

Whilst OL Connect provides considerably more options for email and web output, one need not abandon existing PReS Classic print jobs. They can still be run through Connect Workflow, using the PReS Print Controls task.

Upgrading from PlanetPress Suite 6/7

Note: This document is intended for people that purchased OL Connect and were previously users of PlanetPress Suite version 6 or 7. They should already have their

new serial number(s) in hand and the OL Connect installers.

OL Connect embodies a true Production Print as well as an Interactive Business Communication Solution.

This document provides information on the migration process and the requirements and considerations for existing PlanetPress Suite users to upgrade to the latest generation of our products.

What does OL Connect contain?

OL Connect is comprised of the following modules:

- **OL Connect Workflow** 2024.2. This is the natural evolution of PlanetPress Suite Workflow 7 (Watch, Office or Production). OL Connect Workflow 2024.2 is very similar to the PlanetPress Suite Workflow 7 version but contains a number of new features and has the ability to run OL Connect jobs, as well as PlanetPress Suite, PrintShop Mail Suite and PReS Classic documents.
    - **Imaging** for OL Connect is available as an option. It contains:
        - OL Connect Fax
        - OL Connect Image
        - OL Connect Search

      IMPORTANT: If you owned them, you must also upgrade your Imaging modules to use the new version.
- OL Connect **Designer**. This is a design tool based on completely new technology. It is not backwards compatible and therefore cannot open PlanetPress Suite Design 7 documents. *If you want to continue editing those documents you can keep doing so in PlanetPress Suite Design 7.*
- OL Connect **Server**. This is the core of the Connect technology (see Connect: a peek under the hood in the Online Help: https://help.uplandsoftware.com/objectiflune/en/ol-connect/2024.2/Home.html). This module automates the merging of data with your new templates and generates the output. It is required for OL Connect Workflow 2024.2 to handle templates created with the OL Connect Designer. It can be installed on the same or a different machine as OL Connect Workflow 2024.2.

IMPORTANT: OL Connect does **not** contain the PlanetPress Design 7.

OL Connect does not need any *printer licenses* to print from OL Connect or PlanetPress

Suite. It can also print PrintShop Mail 7 and PReS Classic documents if these programs are licensed.

You can keep everything you have

The first thing to know is that you can keep your current PlanetPress Suite Workflow 7 configuration and your PlanetPress Suite Design documents. When upgrading to OL Connect, they will remain functional.

Please note that PlanetPress Suite Workflow 7 and OL Connect Workflow 8 cannot run at the same time. See "Information about OL Connect Workflow" on page 74 for information about these limitations. The only exception is the PlanetPress Suite Design tool that you can continue to use as it is not part of OL Connect.

OL Connect installation considerations

The PlanetPress Suite could run on a computer with a minimum of only 1GB of RAM available. The OL Connect Server with OL Connect Workflow 2024.2, by default, requires 8GB of RAM, but if you intend on using the new OL Connect Designer on the same computer, you should consider having at least 16GB of RAM available. See "System requirements" on page 18.

Distributed installation or not

You can decide to install OL Connect modules all on the same computer or have each module on a different computer. Reasons for this could be:

- There is insufficient memory in the computer currently running OL Connect Workflow 2024.2 to also run OL Connect Server.
- You want to use a more powerful computer with more RAM and more cores to run the Server to achieve maximum performance (see "Performance considerations" on page 16).

What do I gain by upgrading to OL Connect?

When upgrading to OL Connect, PlanetPress Watch users receive key features of PlanetPress Office such as the following:

- Ability to input data from PDF
- Ability to print your PlanetPress Suite documents on any Windows printer (no need for printer licenses)
- Ability to create standard PDF output from your PlanetPress Suite documents

- Even if you don't recreate your existing PlanetPress Suite documents, you can easily change your workflow to convert your output to PDF, then output them in PCL to any device supporting it.
- The full version of PlanetPress Connect can open your company to the digital world by enabling you to send HTML responsive emails as well as creating dynamic responses and interactive web pages.
  You can reuse the content of your existing documents and map it onto responsive documents that can be sent by email in full HTML glory and/or make them available as native HTML web pages using the latest CSS/JavaScript features.

Note: If you were a PlanetPress Production user, you retain all functionalities within OL Connect Workflow 2024.2. These are automatically imported during the activation (see below).

Create new documents and integrate them into your workflow at your own pace

You can start benefiting from the innovative technology of the new OL Connect Designer right away by designing new documents, or re-doing existing ones at your own pace. You can also now:

- Use the new DataMapper to easily map any input data into a clean data model that any designer person can use.
- Easily create documents with tables that spread over multiple print pages, respecting widow and orphan rules, displaying sub-totals and totals properly.
- Have text that wraps around images.

Upgrade steps

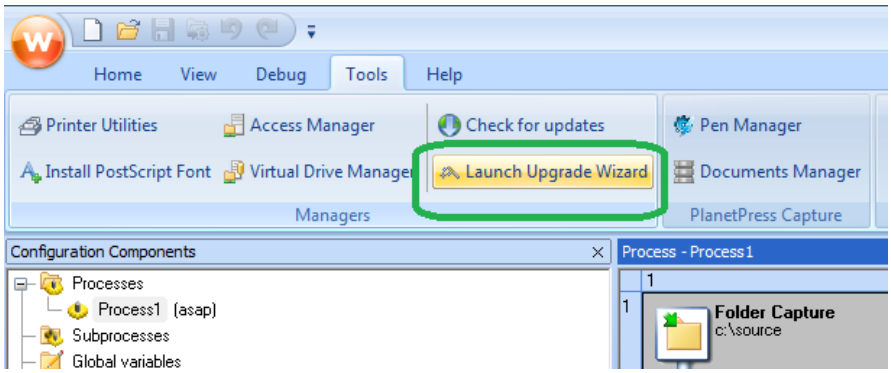
1. To upgrade to OL Connect, the first step is to stop your PlanetPress Workflow services. You can do so from the PlanetPress Workflow configuration tool or from the Windows Service Management console.
2. Then, using the OL Connect setup, install the Designer and/or Server on the appropriate computers.
3. Then, using the OL Connect Workflow 2024.2 setup, install OL Connect Workflow and/or OL Connect Image on the appropriate computers. (See "Installation and activation" on page 21 for more details.)

   Note: If Workflow installation finds that .NET 4.6.2 (or later) is not already installed, it will prompt you to install this manually.

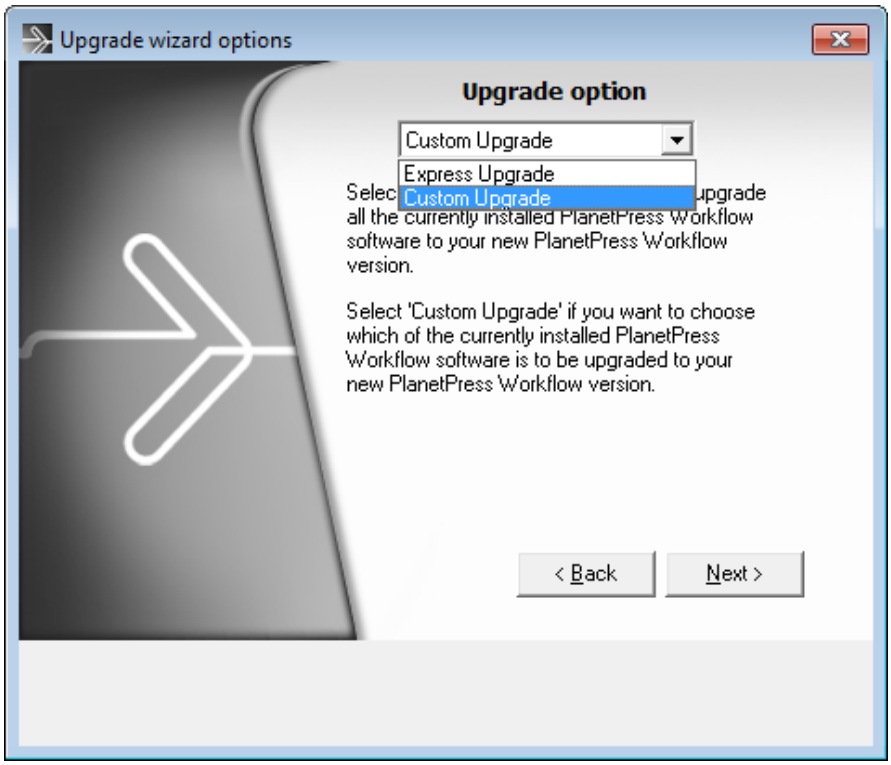
4. If you installed OL Connect Workflow 2024.2 on the same computer where you had PlanetPress Suite Workflow 6 or 7, you can use the Upgrade Wizard to import your:
    - PlanetPress Workflow:
        - Processes configuration
        - PlanetPress Suite compiled documents
        - Service configuration
        - Access manager configuration
        - Custom plug-ins
    - PlanetPress Fax settings
    - PlanetPress Image settings
    - PlanetPress Search profiles
    - Printer activation codes
    - PlanetPress Capture database
    - PlanetPress Capture pen licenses
    - Custom scripts
    - Content of your virtual drive
    - PlanetPress Messenger configuration

5. If you installed OL Connect Workflow 2024.2 on a different computer, please see "How to perform a Workflow migration" on page 70 for help importing all those settings, if you wish to import them.
6. To launch the Upgrade wizard, open the OL Connect Workflow 8 configuration tool and, from the Tools menu, launch the Upgrade Wizard.

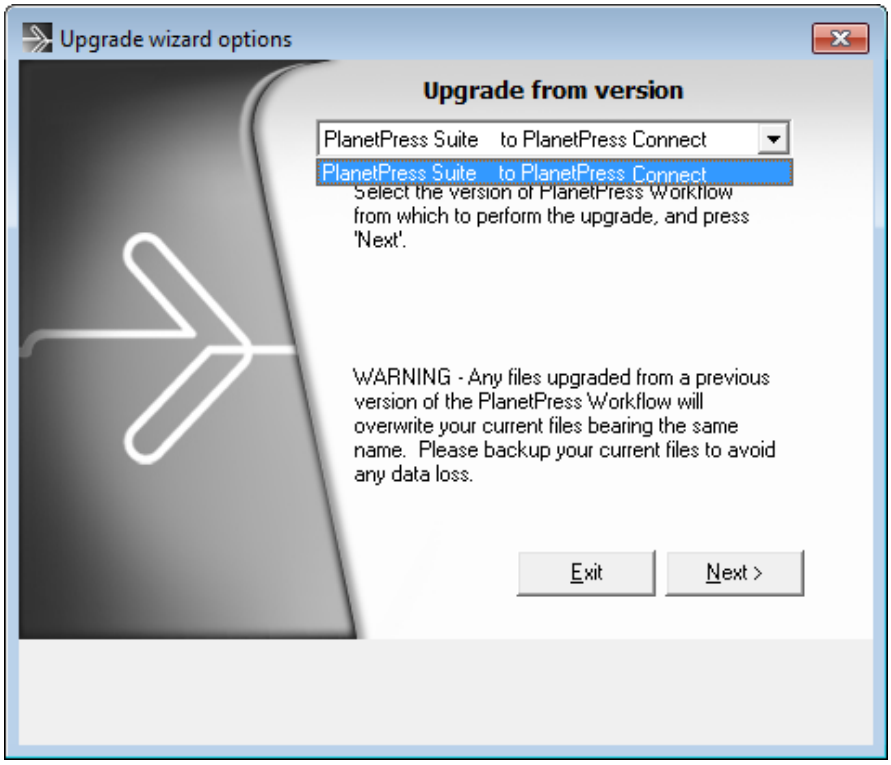
    IMPORTANT: Before you start this process, make sure you have a backup of your current installation/computer.



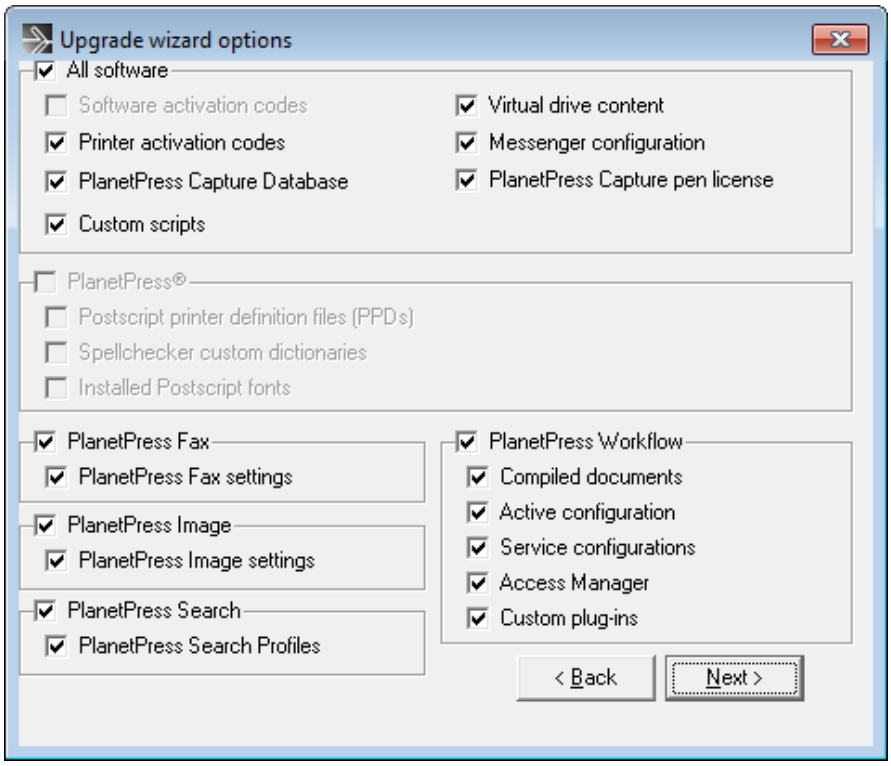
7. Then select your upgrade type:



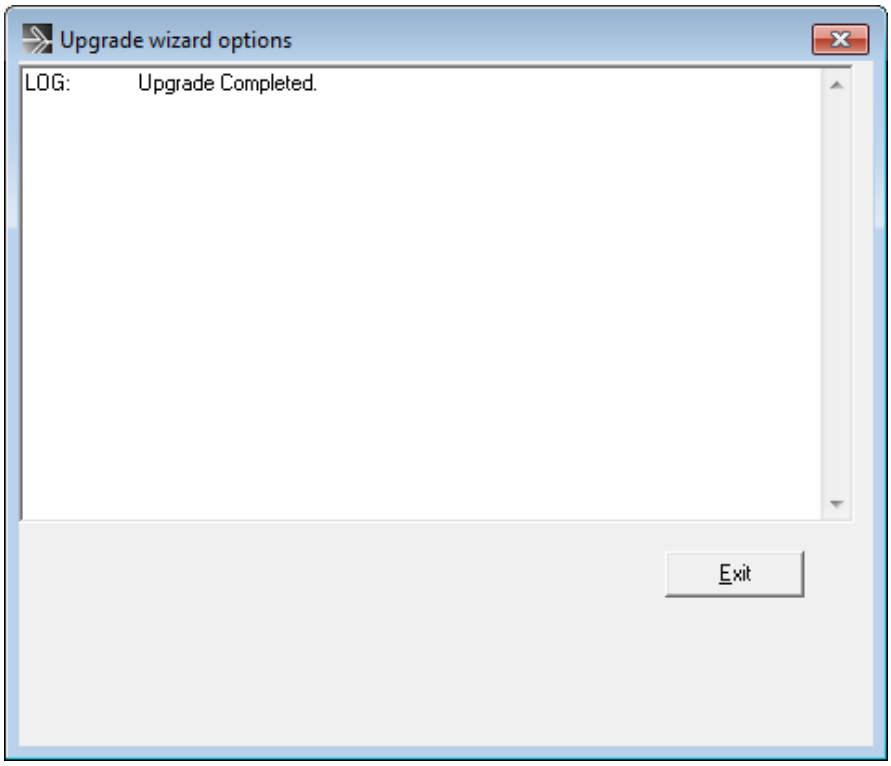
8. Then select the product from which you wish to upgrade:



9. If you selected to do a Custom upgrade, select the required options:



10. Then finally review the log in the final dialog for details on how it went:



11. After that you will need to get the activation file for your product.
    To obtain your activation file, download the OL Connect installer from the Web Activation Manager (http://www.objectiflune.com/webactivationmanager/), follow the instructions for the installation using the serial number provided to you. You can activate your license through the Web Activation Manager.
12. From now on, if you need to modify your PlanetPress Design documents, simply open PlanetPress Design 6 or 7, edit your document and send the updated version to OL Connect Workflow. In order to do that:
    - If you have PlanetPress Design on the same computer as OL Connect Workflow 2024.2, you need to save the documents to PTK by using the “Send to” menu, then "OL Connect Workflow”, and there use the “Save to file” button. Then, from the OL Connect Workflow configuration tool, in the “Import” menu, select “Import a PlanetPress Document” and select the previously saved file.
    - If you have PlanetPress Design on a computer and OL Connect Workflow 2024.2 on another, you can simply use the “Send to” menu in the Designer and select the OL Connect Workflow tool to which you want to send the PlanetPress Design document.

How to perform a Workflow migration

What do you need to consider when upgrading from PlanetPress Suite 7 to OL Connect Workflow 2024.2 on a new computer?

Installing and Activating Workflow 2024.2 on a new computer

Points to consider:

- Before installing, be sure to read "Installation and activation" on page 21. There you will find detailed Connect Workflow installation steps as well as system requirements, notes on license activation and much more.
- It is recommended you retain your existing PlanetPress Suite installation for a period of time after the OL Connect Workflow 2024.2 installation. We recommend this particularly when undertaking migration from one to the other. Once the migration has completed, you should uninstall PlanetPress Suite from your original installation. In the meantime, a fresh installation of OL Connect will run for 30 days without requiring an activation code, to simplify the migration process.
- Request new activation codes for your software licenses (License Transfer agreement needs to be filled out and signed). Contact your local Activations Department. www.objectiflune.com/activations
- Please note that PlanetPress Suite Workflow 7 and OL Connect Workflow 8 cannot run at the same time. See "Information about OL Connect Workflow" on page 74 for information about these limitations. The only exception is the PlanetPress Suite Design tool that you can continue to use as it is not part of OL Connect.

Printer Licences

If you are currently using Printer Licenses under PlanetPress Suite 7 and wish to continue doing so in OL Connect Workflow 2024.2, there are a few ways in which you can reinstall those printer activation codes onto OL Connect Workflow 2024.2. They are as follows:

- If you retained the .pac file (printer activation codes) from your previous installation, then double click on that file from within your new computer, and the printers will get activated.

  If you did not retain the pac file, you can export a new printer activation code. This is done from the PlanetPress Suite Designer **Help > Printer Activation** menu option. When the "*Activate a printer*" dialog is launched, right click within it and select the *Export* context menu option, then save the file on the new computer. Double clicking

on the .pac file will then activate all of your printers on the new computer.

- Login to our Web Activation Manager (www.objectiflune.com/activations) using your customer number and password to get your Printer Activation Codes.
- If you do not have access to the computer in which PlanetPress Suite was previously installed, print a Status Page for each printer from your Connect Workflow 8 Configuration. Do this via the **Tools > Printer Utilities** menu option. Select "*Print Status Page*" and then select your printers from the list.

  Email the Status Page(s) to activations@ca.objectiflune.com and you will receive a .pac file in return, with which you can activate your printer(s).

Documents and Resources

PlanetPress Suite Documents and Resources

- Backup all your PlanetPress Suite Design documents from your old computer and copy them onto the new computer. The files use the extension .ppX, where X is the version number of the PlanetPress Suite that created the files.
  The documents do not have to be in any specific folder.
- Back up the entire directory of: "*C:\ProgramData\Objectif Lune\PlanetPress Suite 7\PlanetPress Watch\Documents*".
  This folder contains all the PlanetPress Design documents and compiled forms (*.ptk and *.ptz).
  Paste the files onto the new computer in the following folder:
  "*C:\ProgramData\Objectif Lune\PlanetPress Workflow 8\PlanetPress Watch\Documents*"
- Back up the latest .pwX (PlanetPress Workflow Tools Configuration) file, found here:
  "*C:\ProgramData\Objectif Lune\PlanetPress Suite 7\PlanetPress Watch*".
  Paste onto the new computer in the following folder:
  "*C:\ProgramData\Objectif Lune\PlanetPress Workflow 8\PlanetPress Watch*"

There are several ways you can import Documents into PlanetPress Workflow. They are as follows.

1. In Connect Workflow go to **File > Import > PlanetPress Document ...** and select the .ptk document you wish to import.
   These files will most likely be found in the Documents folder on the PlanetPress Suite computer:
   "*C:\ProgramData\Objectif Lune\PlanetPress Suite 7\PlanetPress Watch\Documents*"

2. Copy all the PlanetPress Suite 7 Documents and Compiled forms (*.ptk and *.ptz) from the Documents folder on the PlanetPress Suite computer and paste them into the equivalent folder on the Connect Workflow Computer.
   The PlanetPress Suite 7 folder would be "*C:\ProgramData\Objectif Lune\PlanetPress Suite 7\PlanetPress Watch\Documents*".
   The OL Connect Workflow 8 folder will be "*C:\ProgramData\Objectif Lune\PlanetPress Workflow 8\PlanetPress Watch\Documents*"
3. Use the **File > Send To** menu option in PlanetPress Suite Designer and select the OL Connect Workflow 8 to which you want to send the PlanetPress Suite Designer document.
   This should work with PlanetPress Suite versions 6 and 7.

   Make sure that ports 5863 and 5864 are not blocked by firewall on either machine.
   Also make sure you add the PlanetPress Suite machine's IP address to the permissions list in Connect Workflow 8 from **Tools > Access Manager**.
   Further information about Workflow Access Manager can be found here: Access Manager.

Windows Operating System Steps:

- Install all the Windows printer queues from the old computer, making sure they are named the same.
- If your existing documents referenced any local dynamic image resources in a folder or in Local Host, make sure that you import them onto the new computer as well, or make them available on a network accessible drive.
- Any special PostScript or TrueType fonts used will also need be installed on the new computer.
- Verify that you have access to any other resources that the PlanetPress Suite used. This includes network folders, printers, third party software and the like.

Workflow Plug-ins

Back up any custom PlanetPress Suite Workflow configuration Plug-ins (.dll) and copy them onto the new computer.

The PlanetPress Suite Workflow plug-ins folder can be found here: "*C:\ProgramData\Objectif Lune\PlanetPress Suite 7\PlanetPress Watch\Plugins*".

Make sure that you copy only the custom plug-ins.

Alternatively, you can download custom plug-ins from http://planetpress.objectiflune.com/en/suite/resources/support onto the new computer.

Once you've copied your PlanetPress Suite Workflow configurations to Connect Workflow, you can confirm their availability through the Plug-in Bar **Uncategorized** category. There you will find all the Custom plug-ins that have been installed.

Missing plug-ins will be represented in Workflow steps through the use of a "?" icon. Such as in the following image, which shows that the "*TelescopingSortPlugin*" is not installed.



To import a plugin:

1. Click on the popup control ( ) in the Plug-in bar.
2. Select **Import Plugin**
3. Browse to the location of the plug-in DLL file
4. Click on Open.
5. The new plug-in should appear in the Plug-in Bar **Uncategorized** category.

Configuring OL Connect Workflow

- Reconfigure any settings that may need to be applied to the PlanetPress Suite Messenger and PlanetPress Workflow Tools LPD services using the Access Manager (see https://help.uplandsoftware.com/objectiflune/en/olconnect-workflow/2024.2/Workflow/Interface/Access-Manager.html).

- All PostScript and TrueType host based fonts must be reinstalled. Make sure you restart the computer after this step.
- If necessary, reconfigure local ODBC connections. (i.e. create local copies of databases or recreate required DSN entries)
- Manually install all external executables that will be referenced by the Connect Workflow processes in the configuration file. If possible, retain the local path structure as used on the older installation.
- If the Windows "TCP/IP Print Server" service is running on the new computer, it is recommended that you disable the Server so that it does not interfere with the PlanetPress LPD/LPR services.
- If you are using images from a virtual drive, copy the entire contents of "*C:\ProgramData\Objectif Lune\PlanetPress Suite 7\PSRIP*" and paste them onto the new computer here: "*C:\ProgramData\Objectif Lune\PlanetPress Workflow 8\PSRIP*".
- Make sure to set the user who will run the PlanetPress Services. This is done by going into Tools/Configure services. The user will need to have local administration rights in order to be able to run the services.
  For more information, see Users and Configurations (https://help.uplandsoftware.com/objectiflune/en/olconnect-workflow/2024.2/Workflow/WorkflowServices/Users_and_Configurations.html).
- Once all these steps have been completed, you will need to import your configuration file. Find the latest pwX file located on the old computer, if it is not already copied across to the new computer. The default location on the old computer is "*C:\ProgramData\Objectif Lune\PlanetPress Suite 7\PlanetPress Watch*".

  On the new computer you will need to go to **File > Import > Configuration Components**. Browse and find your file. If the file is not visible change the file type to *.pw7

PlanetPress Image, Fax and Search

- Reconfigure the PlanetPress Image and PlanetPress Fax outputs with the new host information.
- You must import the Search Profile and rebuild the database in order to generate the required database structure.

Information about OL Connect Workflow

If you wish to use OL Connect Workflow (automation), you will need to install OL Connect Workflow 2024.2 as well. Workflow 2024.2 is provided through a separate installer which is available on CD or for download as follows:

- If you are a **Customer**, the installer can be downloaded from the Upland Objectif Lune Web Activations page: http://www.objectiflune.com/activations
- If you are a **Reseller**, the installer can be downloaded from the Upland Objectif Lune Partner Portal: http://extranet.objectiflune.com/

OL Connect Workflow can be installed in parallel on the same machine as an existing PlanetPress® Suite 7.x installation.

Note however:

- If both versions need to be hosted on the same machine, OL Connect Workflow 2024.2 must always be installed after the legacy PlanetPress® Suite 7.x installation.
- When uninstalling OL Connect Workflow 2024.2, you may be prompted to repair your legacy PlanetPress® Suite 7.x installation.
- If OL Connect Workflow 2024.2 has been installed alongside PlanetPress® Suite 7, Capture can no longer be used with Workflow 7.
- OL Connect Workflow 2024.2 and PlanetPress® Suite Workflow 7 cannot run simultaneously, since only one version of the Messenger service can run at a time. In fact, no two versions of Workflow can be run simultaneously on the same machine, regardless of versions.
- It is possible to switch between different versions running by shutting down one version's services and then starting the other. However, this is not recommended. There are no technical limitations that prevent processes from previous PlanetPress Suite Workflow versions (as far back as Version 4) to run on OL Connect Workflow 2024.2, removing the need to run both versions.

For more information on the licensing of Workflow 2024.2, please see "Activating a License" on page 45.

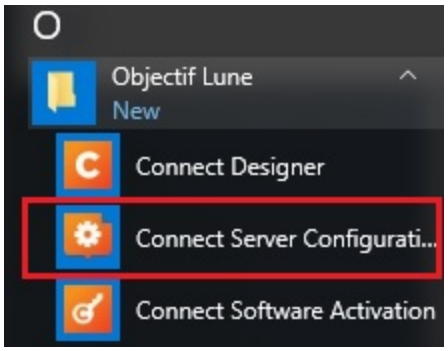
Server configuration settings

This chapter describes configuring the OL Connect Server.

In the Enterprise edition of OL Connect you can install Servers on multiple machines, in a Master/Client relationship. To see an overview of these Master/Client setups, please see the Enterprise only "Server Clustering" on page 98 topic.

The Connect Server settings are maintained by the **Connect Server Configuration** utility tool which is installed alongside OL Connect.

Connect Server Configuration can be launched from the Start Menu, as seen in the following screenshot:



The **Connect Server Configuration** dialog is separated into individual pages, where each page controls certain aspects of the software.

The following pages are available:

- Clean-up Service preferences
- "Connection preferences" on the next page
    - "Security and Users Settings" on page 80 (only available in the Enterprise edition, but not for Enterprise edition **Server Extension (Client)** installations)
- Database Connection preferences
- Engines preferences
    - "Automatic Restart settings" on page 90 (only available in the Enterprise edition, but not for Enterprise edition **Server Extension (Client)** installations)

    Note: Automatic Restarts are controlled by the main server. Server Extension (Clients) are treated the same as local engines in regards to restart timing.

- Hardware for Digital Signing preferences
- Language preferences
- Logging preferences
- "Parallel Processing preferences" on page 91

Connection preferences

Background

The Connection preferences are a way to control precisely how to connect to the OL Connect Server.

This preference page was added in Connect 2018.2 to simplify management of HTTP communication with OL Connect. HTTPS communication options were then added in OL Connect 2021.1.

These preferences allow Connect inter-engine communication to occur on an alternate port, reducing the chances of inter-engine communication being starved of connections when running on a system that processes very large numbers of HTTP/HTTPS connections.

In OL Connect Enterprise, the **Connections** choices available to you will be dependent upon whether the installation is a **Master** (or **standalone**) installation or a **Server Extension (Client)** installation.
For **standalone** and **Master** installations, see "Connection settings (standalone/Master)" below.
For **Server Extension (Client)** installation see "Connection settings (Client)" on page 79.

Connection settings (standalone/Master)

- **REST Services** group. Use this to adjust the HTTP or HTTPS communication settings for Connect.
    - **Port**: Set the primary HTTP or HTTPS Server connection port number for Connect.
    - **Protocol**: Select whether to use HTTP or HTTPS.
    - **Restrict access to localhost (127.0.0.1)** checkbox:

This option allows you to specify whether the server restricts access to localhost (ON) or allows requests from remote locations (OFF).

By default on new installations, the option shall be set to ON (the server restricts remote access). This applies to both the interactive and the silent installer.

On existing installations, the option is set to OFF, to maintain backward compatibility.

If HTTPS is selected, the following HTTPS specific options become available:

- **Root certificate**: This is an optional selection. Use the Browse button to locate the appropriate *root certificate* file, if one is available.
- **Server certificate**: Use the Browse button to locate the appropriate *server certificate* file. This is a mandatory selection.
- **Private key**: Use the Browse button to locate the appropriate *Private key* file. This is a mandatory selection.
- **Private key Password**: Enter the *Private key* password.
- **Confirm password**: Re-enter the password, to confirm it was entered correctly.

Note: Enabling HTTPS for the primary REST Services connection requires different ports be used for the internal connections (IPC and REST) between Connect Server and its engines.

- **Internal communication on separate ports** checkbox:
  Set the internal connection communication ports. These settings are purely for Connect inter-engine communication.
  It is recommended that this option be selected.

  Note: If HTTPS were selected as the **REST Services** protocol, these internal Port settings must be entered.

  Note: Please note that local security settings (including firewalls) must be taken into consideration when setting Port entries.

  - **IPC Port**: Set the internal connection port number. This cannot be the same at the primary REST Services port number.

- **REST Port**: Set the internal REST connection port number. This cannot be the same at the primary REST Services port, or the **IPC Port**.

- **Advanced** group
  - **Maximum threads**: Sets the maximum number of HTTP threads for processing requests.
    This entry should only be changed in consultation with OL.
  - **Maximum asynchronous tasks**: Set the maximum number of requests that can be executed simultaneously.
    The default asynchronous task setting is twice the number of processing cores available to the computer. This can be expanded, if the limitation is deemed a bottleneck.

    Note: This does not limit the number of requests that can be received, just how many are processed in parallel. Additional requests are buffered and are processed as capabilities allow.

Connection settings (Client)

- **Master Server** group. Use this to set connection to OL Connect **Master** server. (OL Connect **Enterprise edition only**.)
  - **Hostname**: Set the device name for the OL Connect **Master** server.
  - **Port**: Set the port number for the OL Connect **Master** server.
  - **Username**: The account that the services use to login to the OL Connect **Master** server. If the machine is on a domain, use the format domain\username.
  - **Password**: Enter the password associated with selected username.
  - **Initial retry interval (secs)**: The retry interval when initially trying to connect (or reconnect) to the OL Connect **Master** server.
  - **Prolonged retry interval (secs)**: The retry interval for trying to connect (or reconnect) to the OL Connect **Master** server after the initial retry limit period has been exceeded.
  - **Initial retry limit (mins)**: How long the initial connection (or reconnection) attempts should run for.

Buttons

The **Connections** preferences also provides you with buttons to :

- **Test Connection**. This button is available only on OL Connect (Enterprise edition) **Server Extension (Client)** installations .
  When the button is pressed an attempt is made to connect to the OL Connect **Master** server, using the location, user name and password set in this preference page.
  If the connection is successful, a confirmation message is displayed in the top area of the preferences page.
  If the test fails, a warning message is displayed in the top area of the preferences page. Set logs for further information.
- **Restore Defaults**. This option restores the preferences to Defaults. This applies to the current Preferences page only, not any other Preferences.
- **Apply**: This option applies the settings made within the current Preferences page, but does not close the Preferences dialog.

Security and Users Settings

Note: This option is only available in the Enterprise edition of OL Connect.

This dialog controls the security settings for external applications connecting to the OL Connect Server, such as OL Connect Designer, OL Connect Workflow plugins, or scripts communicating through the REST API.

Caution: It is **highly recommended** to keep security enabled and change the password on any server accessible from the web.

If these precautions are not taken, data saved in the server may be accessible from the outside!

- **Allow cross-origin resource sharing**: Chose whether or not to allow cross-origin resource sharing.
- **Enable server security**: Enable to add authentication to the REST server.
  - When enabled, the username and password (which cannot be blank) of an authorized user must be entered in any remote OL Connect Designer that links to this Server. See the Connect Servers preferences sub-section of the Designer Preferences dialog.
  - When disabled, a username and password is not required to make REST request, and tasks in OL Connect Workflow do not require them in the Proxy tab. Nor would a username and password be required on any remote OL Connect Designer that links to

this Server.

- **Session expiration time (mins)**: Select a session time (in minutes, between one minute and one year) that the authentication stays valid for the requested process. This can reduce the number of requests to the server since an authentication request is not necessary during the session.
- **Authorized Users** table: The Table contains a list of all currently Authorized Users. All required information is summarized in the table, which has buttons to the right which allow one to add (), edit () or delete () individual entries. Double clicking on any entry in the table also launches the Edit dialog.

  The options available in the Add/Edit dialogs are as follows:

  - **Username**: Enter the username for the server security.
  - **Roles**: Check the roles that apply to the user.
    - **Data Handler**: The user can start and stop operations, get results of operations, and view and handle data (except resources). This appears as ROLE_DATA in the table.
    - **Resource Handler**: The user can manage resources like data mapping configurations, templates, and print presets. This appears as ROLE_ RESOURCE in the table.
    - **Monitoring**: Can monitor the server, but cannot see data, change server settings, or modify resources.This appears as ROLE_MONITOR in the table.
  - **Password**: Enter a password for this user for the server security. There are no specific password requirements or restrictions.
  - **Confirm password**: Re-enter the password assigned to this user.

Note: Existing client sessions are not affected by changes to authorized users. Clients may only see the effect after their session expires.

Engine configuration

Note: The options available will differ, based upon whether your edition of OL Connect is the Enterprise edition or Professional edition. Where the options differ, this is reflected in the text.

The Connect Server cooperates with different engines to handle specific tasks. A **DataMapper engine** extracts data from a data file. A **Merge engine** merges the template

and the data to create Email and Web output, or to create an intermediary file for Printed output. The intermediary file is in turn used by a **Weaver engine** to prepare the Print output.
A **Merge engine** merges the template and the data to create an intermediary file for Printed output. The intermediary file is in turn used by a **Weaver engine** to prepare the Print output.
(For more information see: Connect: a peek under the hood).
Settings for these engines are made in the **Connect Server Configuration** tool (see "Server configuration settings" on page 76).

Connect allows for the parallelization of jobs. This means you can allocate 1 or more engines to process jobs.

OL Connect Enterprise edition only: The number of each type of engine - on each machine in a Server Clustering setup - is configurable, as well as the amount of Merge engines than can work together on the same job (determined by job size: small, medium or large) and at what maximum speed.

OL Connect Professional edition: The number of each type of engine is configurable, as well as the amount of Merge engines than can work together on the same job (determined by job size: small, medium or large) and at what maximum speed.

The "Parallel Processing preferences" on page 91 allow you to control precisely how the OL Connect Server handles jobs.

This gives you, as solution developer or application manager, full control of how to apply a machine's power. For example, you can share the available resources to process multiple jobs at once or allocate all resources to process one single job as fast as possible, or anything in between.

OL Connect distinguishes 5 type of jobs:

1. Small Print
2. Medium Print
3. Large Print
4. Email
5. Web

OL Connect categorizes print jobs on the number of pages they will produce. What constitutes a **Small**, **Medium** or **Large** job can be configured per server (see below, in "Allocating processing power to jobs" on page 86).
There is no distinction between small, medium and large jobs for Email and Web output.

This topic explains all of these settings and the principles behind them, and it provides guidelines for letting the Server manage the workload in such a way as to achieve the highest possible output speeds.

Factors to take into account are:

- Your license, which imposes a **speed quota** (see "Speed quota: Pages Per Minute" below).
- The **processing power** of your machine. How many cores it has determines how many engines can be launched (see "Launching multiple engines" on the facing page).
- The size and number of jobs of one kind that need to be handled, sequentially or simultaneously. In other words, your **use case**. By allocating processing power to jobs of different sizes you can make the setup match your usage situation (see "Allocating processing power to jobs" on page 86).

Tip: Other ways to enhance performance are described in another topic: "Performance considerations" on page 16.

Speed quota: Pages Per Minute

The highest possible output speed depends first and foremost upon your license.
The maximum is 10000 Pages Per Minute (PPM) with the Professional edition, and 80000 PPM with the Enterprise edition.

Note: PPM in this case stands for Pages *and* emails *and* web pages Per Minute.

The number of engines that are allowed to operate in parallel to create the same type of output are referred to as the **Licensed task limit**.
OL Connect Enterprise edition provides 64 Licensed tasks.
OL Connect Professional edition provides 8 Licensed tasks.

Several engines can create the same type of output in parallel.
One engine needs *at least* one free speed unit to be able to create output.

It is important to note that only **output operations** are limited by this quota.

- **Weaver** engines **always** require a Licensed task to run.
- **Merge** engines **only** require a Licensed task when creating Email or Web output. Merge engines involved in a Print process don't need a Licensed task in order to run.
- **DataMapper** engines **don't** need Licensed tasks.

In situations where Print *and* Email and/or Web output are created at the same time, only the Merge engines that create Email/Web output count towards the maximum number of Licensed tasks for that type of output.

Spare speed units are distributed proportionally

Since the number of engines is configurable, and jobs may run concurrently, the number of engines in use may not match the exact number of available Licensed tasks.
When there are more Licensed tasks than there are engines in use, the OL Connect server distributes the speed units and the maximum 'pages' per minute to all running jobs in proportion to the number of engines they are using.

> **Note: Output speed** is the speed at which the output is created by the engine in question. Data mapping and other steps in a production process are not taken into account. The **throughput speed** is the speed of the entire production process. This will always be lower than the output speed.

Launching multiple engines

One single engine can only process a single job at a time and will run mostly single-threaded.
In order to benefit from multi-core systems it is recommended that several engines run in parallel.

As a rule of thumb, you will want to run one less engine in total on a machine than the system has cores, leaving one CPU core free for the Connect Server and the operating system to use.

Modern hardware typically has both full cores and **hyper-threading** or logical cores. The logical cores should not be counted as a full core when determining how many engines to use. As a guide, count logical cores for only 25%-50% of a full core.
For example: on an Intel i7 CPU that comes with 4 cores and 4 additional hyper-threading cores, Windows Task Manager will show 4 cores and 8 logical processors on its performance tab. On a CPU like this, 5 or 6 engines can be configured to run in parallel.

To configure the number of engines:

1. Open the **Connect Server Configuration** utility tool (see "Server configuration settings" on page 76).
2. Under **Parallel Processing**, go to the *Content Creation* tab and set the number of Merge engines for the various tasks.

3. Go to the *Output Creation* tab and set the Reserved Weaver (Output) engines. See "Deciding how many engines of each type to launch" below.
4. Click **Apply** or **Apply and Close**.

It is advised that you *do not configure more engines than can be backed by actual processing power*. This adds overhead while not adding processing power.

Deciding how many engines of each type to launch

When jobs run in parallel, **different types** of engines may run at the same time. It depends on the usage situation which type of engines has the biggest impact on performance.

The more and the larger operations of a kind need to be performed simultaneously with smaller operations, the sooner you will see a performance increase when using multiple engines.

Merge engine

Generally, launching a relatively high number of **Merge** engines results in better performance, as Merge engines are involved in the creation of output of all kinds (Print, Email and Web) and because content creation is relatively time-consuming.

DataMapper engine

Adding DataMapper engines might be useful in the following circumstances:

- When large data mapping operations have to be run simultaneously for many jobs.
- When frequently using PDF or XML based input. Particularly in the case of XML input with large individual records.
- When the *All In One* plugin is used often in Workflow configurations and there are more than two Merge engines running.

The OL Connect MariaDB database needs a fast storage system (SSD or other fast devices) to be able to keep up with two or more DataMapper engines.
When the database is installed on a system with a slow hard drive, adding a DataMapper engine may not increase the overall performance.

Weaver engine

Adding extra Weaver (Output) engine(s) might be useful when large Print jobs are to be run simultaneously with smaller Print jobs.

Memory per engine

By default, each engine is set to use up to a predetermined amount of RAM. To make optimum use of a machine's capabilities it might be useful to increase the amount of memory that the various engines can use.

- DataMapper engines may perform better with greater memory when running jobs containing a lot of data.
- For complex templates with a lot of pages per document, there is a chance that Merge engines will run better with more memory.
- The maximum memory usage of a Weaver engine can be relevant for jobs with heavy graphics; or for jobs that use Cut & Stack impositioning; or for jobs using particular variables that entail page buffering (see Content variables).

The **Maximum memory per engine** setting is found in the Engines preferences.

These settings only control the maximum size of the *Java heap* memory that an engine can use; the total amount of memory that will used by an engine is actually a bit higher.

Also keep in mind that the Connect Server and the operating system itself will need memory to keep running.

Allocating processing power to jobs

Which engine configuration is most efficient in your case depends on how Connect is used. What kind of output is needed: Print, Email, and/or Web? How often? How big are those jobs? Do they have to be handled at the same time or in sequence? Would it be useful to give priority to small, medium or large jobs, and/or to jobs of a certain kind?

Depending on the answers to these questions, you can allocate processing power to jobs in order to run them as fast as possible, and/or in the order of your preference.

The first step in this process is to define the size of small, medium and large jobs.

Job size

Connect lets you define job sizes by setting the maximum number of pages a job can have and still be considered a **small** job, and what the minimum number of pages a job can have in order to be considered **large**. Jobs that fall between the small and large jobs are **medium** jobs.
Defining **small**, **medium** and **large** jobs is important, as you can assign additional resources to jobs that are considered either medium or large, via the settings for Merge and Weaver engines.

There is no recommendation regarding what number of pages constitute a small, medium or large job. Job size is a relative concept: in a small service company a job may be considered large when it outputs 1,000 pages, whereas that same job in a large insurance company might be seen as small. This setting needs to be based on an assessment of the actual (or expected) workload of Connect.

To set the job sizes:

1. Open the **Connect Server Configuration** utility tool (see "Server configuration settings" on page 76).
2. Under **Parallel Processing**, go to the *Output Creation* tab and enter the maximum number of pages in a small job.
3. Enter the minimum number of pages in a large job.
4. Click **Apply** or **Apply and Close**.

Medium jobs will be those that fall between the maximum pages of a small job, and the minimum pages of a large job.

The number of engines used for **small**, **medium** and **large** jobs is configurable (see below).

Running a job as fast as possible

Number of parallel engines per Print job

Two or more engines of a kind can be combined to work on the same Print job. Generally jobs will run faster with more than one engine, because sharing the workload saves time. However, running one job with multiple engines reduces the number of jobs that can be handled at the same time by that kind of engine, because there are only so many engines (and speed units) available.

> **Note:** When each individual **record** in a job is composed of a very large number of pages, the Memory per engine setting and the machine's hard drive speed are probably more important than the number of Merge engines, since one record cannot be split over multiple cores, or machines (Enterprise edition only) (see "Memory per engine" on the previous page).

Target speed per Print job

If a Print job of a specific size has more than one parallel speed unit assigned to it, that *multiplies its speed*, however it *reduces the number of Print jobs* that can be run simultaneously.

When no other Print output operations run at the same time, a single job will use all available speed, or the maximum target speed reserved for jobs of that size (see "Dividing processing power over jobs" below).

To set a number of speed units per Print job:

1. Open the **Connect Server Configuration** utility tool (see "Server configuration settings" on page 76).
2. Under **Parallel Processing**, go to the *Output Creation* tab.
3. Set the **Target speed when running simultaneous jobs** for small, medium and large Print jobs.
4. Click **OK** or **Apply**.

Dividing processing power over jobs

There is a number of ways in which you can divide processing power over output operations of a certain kind and/or size.

- By **reserving engines** for jobs of a certain **kind** (and **size**, in the case of a Print job). Note that reserved engines *cannot be used* by any other type of job. This means there will be fewer engines to handle other jobs. Consequently, the other jobs may take more time and may have to wait (or wait longer). However, if the server receives many web requests then having engines reserved for HTML output can help performance.
- By reserving a **number of parallel engines** for Print jobs of a certain size (see "Number of parallel engines per Print job" on the previous page). More parallel engines will make them run faster, but they will have to wait (longer) if the required number of engines isn't available when they come in.
- By **specifying target speeds for simultaneous Print jobs** of a certain size.

All of these engine configuration settings are found in the Parallel Processing Preferences:

1. Open the **Connect Server Configuration** utility tool (see "Server configuration settings" on page 76).
2. Under **Parallel Processing**, check out the information contained in both *Content Creation* and *Output Creation* tabs.

How the Server decides if a job can be handled

In summary, this is how jobs are handled when they can run in parallel.

- Whenever a job comes in, the number of engines to use is determined. (For Print jobs, this is based on whether the operation is small, medium or large; see "Job size" on page 86.)
- If there are enough **reserved** Merge engines for that type of job available then those engines will be used.
- If there are not enough reserved Merge engines available, then any unreserved Merge engine that is available will be used.
- If no, or not enough, Merge engines are available then the job will have to wait until the required number of appropriate Merge engines becomes available.

The following limitations apply at all times:

- The maximum number of concurrent Merge engines working on jobs of the same kind or size may not be exceeded.
- If no - or not enough - speed units are available for that type of output, the job must wait.

Examples

Here are a few examples of use cases and settings that would be appropriate in such cases.

Batch processing. In a batch processing situation, jobs don't have to be handled simultaneously. All jobs - whether they are big and small - are processed one after another. Every job should be handled as quickly as possible. It is therefor recommended to assign the maximum number of engines and target speeds to all jobs. Do not reserve engines for certain jobs.

Web requests. In online communication, response times are critical. If the Server receives a lot of Web requests, it should handle as many as possible, as quickly as possible, at the same time. It is recommended to launch as many Merge engines as possible and to reserve most of them for HTML output. The jobs will generally be small and can do with just one Merge engine.

Mixed jobs that are processed in parallel. In a situation where small, medium and large jobs can come in at any time and should be handled in parallel, the challenge is to find a balance between how much power can be allocated to jobs (to minimize the time they cost) and how long they can wait. No single job should require all of the processing power, *unless* it is acceptable for it to have to wait until the maximum number of engines finally comes available - and then all other jobs will have to wait.

Automatic Restart settings

Note: This option is only available in the Enterprise edition of OL Connect.

Note: This option is not available for Enterprise edition **Server Extension (Client)** installations

It is considered good management to restart the OL Connect Engines periodically. This dialog provides the controls for scheduling OL Connect Engines restarts.

Automatically restart engines to safeguard system availability

- **Time Limit** checkbox: This enables engine restarts to be scheduled to occur either after a specified period of time, or within a daily time window.
  This means daily Engine restarts can be scheduled to run outside of production hours.
- **Rolling restart** checkbox: This sets the engines restarts to occur in a "rolling" fashion, whereby each engine is stopped and restarted individually, one after the other.
  Each engine is only stopped when the previously restarted engine is once again ready to start processing.
- **Restart method**: Chose between restarting after a specified number of minutes (**Restart after interval**) or within a daily time window (**Daily restart in period**).
- **Restart after (minutes)**: Only available if **Restart after interval** selected.
  Specify the amount of minutes that the restarts are to occur after.
- **Daily restart period begin**: Only available if **Daily restart in period** selected.
  Enter the daily start time for the time window in which automatic restarts will be scheduled to occur.
- **Daily restart period end**: Only available if **Daily restart in period** selected.
  The end of the daily time window in which the automatic restarts are scheduled to occur.

Memory limit

Enter the memory limit for individual Engines. If any of these memory limits are exceeded, an automatic restart of those Engine types will be triggered.

- **Data Mapper Engine (MB)**: Enter the memory limit for Data Mapper Engine.
- **Merge Engine (MB)**: Enter the memory limit for Merge Engine.
- **Weaver Engine (MB)**: Enter the memory limit for Weaver (Output) Engine.

Parallel Processing preferences

The parallel processing preferences (previously referred to as Scheduling preferences, prior to 2019.2) page provides the means to control precisely how the OL Connect and Connect Server (Master or Client, with the Enterprise version of OL Connect) handles jobs that operate in parallel.

There is considerable difference between the preferences that are available in the Designer Parallel Processing page and the Server Configuration Parallel Processing page.

- For the **Designer** specific preferences, see "Parallel Processing properties (Designer Preferences)" below.
- For the **Server Configuration** specific preferences, see "Parallel Processing properties (Server Configuration)" on the facing page.

For additional information on how these preferences can enhance performance, see "Engine configuration" on page 81 and "Performance considerations" on page 16.

Parallel Processing properties (**Designer** Preferences)

Preset selection (**Designer** Preferences)

Only the **Custom** setting is applicable to the Designer Preferences, so this option is always selected and the field made read-only.

Content Creation Tab (**Designer** Preferences)

A Tab with data that relates solely to Content Creation.

The options are:

- **Total Merge engines configured** read only display: This is a read only entry that shows the total number of Merge engines available. To change this value, you must update the Merge Engines in the Engines preferences page.
- **Multi tasking** group:
  When starting a new Content Creation task, the task will immediately commence if there is a Merge engine available. How many Merge engines to use is based on the number of records in the input data.

  Select from the following options:

  - **Optimize per task**: This runs each task with as many Merge engines as needed (until engines are exhausted).
    Using this option means that Merge engines will not be reassigned when new

tasks come in.

This option is better suited for **batch processing**.

- **Maximize simultaneous tasks**: Merge engines will be reassigned from a running task to new tasks when they arrive.
  To accommodate as many tasks as possible, the server can dynamically reassign Merge engines to new tasks as they arrive. Thus a running Content Creation task need not block other tasks.
  If multiple Merge engines are processing a task, an engine can be taken from that task and reassigned to a new task.
  As each task finishes, any freed up Merge engines get re-assigned back to still running tasks, if no new tasks were waiting.

  This option is better for **on demand (ad hoc) and simultaneous job processing**.

- **Additional engine every (records)** entry: This controls how many Merge engines are used for a Content Creation task. It means that for every additional 'x' records in the task, an additional Merge engine will be used.
  For example, with the default 100 record threshold, tasks with 1-100 records will be assigned 1 Merge engine, tasks with 101-200 get assigned 2 merge engines, tasks with 201-300 get assigned 3 merge engines, and so on.

  > **Note:** These entries aren't applied instantaneously. There is often a lag. That is why you can reserve a specific number of engines for new jobs, in the options below. Those reservations operate in real time.

  The default of 100 records was chosen purely because it is an easily multiplied number, not because it has been proven to have any significant value. It means that on an average system (i.e., less than 10 Merge engines) any decently sized task is allowed to use all Merge engines. It also assumes that using more than one Merge engine for less than 100 records will probably not make a big enough difference to throughput speed. Obviously, there are situations where these assumptions will not apply.

  > **Note:** Currently, it's only the print and PDF content creation tasks that use multiple Merge engines.

Parallel Processing properties (**Server** Configuration)

These are the options that you will be presented with if the OL Connect Server was installed.

Whether options are available for selection on this page or not is entirely dependent upon the **Number of engines** selection made in the Engines preferences page. If either of the Merge Engines or Weaver Engines were set to a value beyond one, then options will become available in this Parallel Processing properties page.

Preset selection (**Server** Configuration)

Choose from some common usage scenarios. The preset scenarios are:

- *Default* - Basic settings that are good for running most things. Single jobs have preference over multi-tasking, however.
- *Batch Print* - Best settings for processing jobs, one by one, in a sequential, first in first out (FIFO) order.
- *On demand Print* - Best settings for processing many small print jobs simultaneously.
- *On demand* - Use when serving web pages, sending emails, and printing many on demand jobs simultaneously.
- *Connect Send* - Settings optimized for use with *Connect Send*.
  Connect Send needs a Merge engine available for on demand web pages, to be able to process on demand print jobs (especially content creation), and have a Weaver engine available for creating the production output.
- *Capture on the Go* - Settings optimized for use with *Capture on the Go* applications.
  Capture on the Go needs on demand content creation for web pages (the forms), emails (notifications), and PDFs (persistent version of forms).
- *Custom* - where you can chose exactly where and how the engines are to be assigned.

  Note: We would recommend basing any Custom settings on one of the preset scenarios.
  Select the preset that most closely matches your day to day needs, then tweak those settings.

Only the **Custom** setting allows you to manually set where and how the engines are to be assigned. If selected, then options for *Content Creation* and *Output Creation* will become available under the two Tabs named thus.

Content Creation Tab (**Server** Configuration)

A Tab with data that relates solely to Content Creation.

The options are:

- **Total Merge engines configured** read only display: This is a read only entry that shows the total number of Merge engines available. To change this value, you must update the Merge Engines in the Engines preferences page.
- **Multi tasking** group:
  When starting a new Content Creation task, the task will immediately commence if there is a Merge engine available. How many Merge engines to use is based on the number of records in the input data.

  Select from the following options:

  - **Optimize per task**: This runs each task with as many Merge engines as needed (until engines are exhausted).
    Using this option means that Merge engines will not be reassigned when new tasks come in.

    This option is better suited for **batch processing**.
  - **Maximize simultaneous tasks**: Merge engines will be reassigned from a running task to new tasks when they arrive.
    To accommodate as many tasks as possible, the server can dynamically reassign Merge engines to new tasks as they arrive. Thus a running Content Creation task need not block other tasks.
    If multiple Merge engines are processing a task, an engine can be taken from that task and reassigned to a new task.
    As each task finishes, any freed up Merge engines get re-assigned back to still running tasks, if no new tasks were waiting.

    This option is better for **on demand (ad hoc) and simultaneous job processing**.
  - **Additional engine every (records)** entry: This controls how many Merge engines are used for a Content Creation task. It means that for every additional 'x' records in the task, an additional Merge engine will be used.
    For example, with the default 100 record threshold, tasks with 1-100 records will be assigned 1 Merge engine, tasks with 101-200 get assigned 2 merge engines, tasks with 201-300 get assigned 3 merge engines, and so on.

    > **Note:** These entries aren't applied instantaneously. There is often a lag. That is why you can reserve a specific number of engines for new jobs, in the options below. Those reservations operate in real time.

    The default of 100 records was chosen purely because it is an easily multiplied

number, not because it has been proven to have any significant value. It means that on an average system (i.e., less than 10 Merge engines) any decently sized task is allowed to use all Merge engines. It also assumes that using more than one Merge engine for less than 100 records will probably not make a big enough difference to throughput speed. Obviously, there are situations where these assumptions will not apply.

> **Note:** Currently, it's only the print and PDF content creation tasks that use multiple Merge engines.

- **Reserve engines for on demand tasks** group checkbox:
  Reassigning engines is not instantaneous when a new task arrives. To avoid inefficiencies, Merge engines will first finish work on their current selection of records, before being reassigned. Reserving engines better ensures that on demand tasks get picked up right away, but it also means that less engines will be available for large tasks.

  The total amount of Merge Engines available for selection here must be set in the Engines preferences page.

  Select from the following options:

  - **Email (engines)**: Set the amount of Merge engines to reserve for Email jobs.
  - **Web (engines)**: Set the amount of Merge engines to reserve for Web based jobs.
  - **Print and PDF (engines)**: Set the amount of Merge engines to reserve for Print output jobs.
  - **Merge engines available for any task**: A read only value that shows how many Merge engines remain available for selection.
  - **On demand task size limit (records)**: An *on demand task* is a task that has someone (or something) waiting for it to finish, so these typically need to finish "as soon as possible". Often these are single documents but not necessarily always.
    This option allows you to designate what a Content Creation *on demand task* is, based upon the number of records.

Output Creation Tab (**Server** Configuration)

A Tab with data that relates solely to job Output Creation.

If only the single Weaver Engine is configured in the Engines preferences page, then this whole tab will be disabled.

- **Licensed speed limit (pages per minute)**: This read only entry shows the current license speed limitations, in pages per minute. The speed limitations are determined by your OL Connect license.
  This information is to help you choose what settings would make sense when assigning the "*Target speed*" values later in the Tab.
- **Licensed tasks limit**: This read only entry shows the current license task (or job) limitations.

  > **Note:** The terms "job" and "task" can be used interchangeably.

- **Total Weaver engines configured**: This read only entry shows the total number of Weaver engines available. To change this value, you must update the amount of Weaver Engines in the Engines preferences page.

Job sizes group:
These two settings allow you to define what type of jobs are to be considered **Small** jobs and what types are to be considered **Large**. Any job that falls between these two settings (if there *is* a gap between the two) will be considered a **Medium** job.

Small job max (pages): Enter the maximum number of pages a job can have and still be considered **Small**.

Large job max (pages): Enter the minimum number of pages a job must have before it is considered to be a **Large** job.

Reserved engines group:
These settings allow you to reserve some Weaver (Output) engines for small and medium Output Creation tasks. This it to prevent large jobs from using all available engines and blocking small or medium jobs from running. Since Weaver engines cannot switch tasks, such behaviour can only be achieved through reserving engines for small and/or medium jobs.

Engines may be reserved both for small, and for medium sized jobs. Engine reservations are not *required* for either though.

- **Small job (engines)**: Optionally enter the number of Weaver engines you wish to reserve for **Small** jobs.
  To make sure large batch jobs get sufficient speed during Output Creation, set a lower target speed for small jobs, this will automatically allow more for the large and

medium jobs.

- **Medium job (engines)**: Optionally enter the number of Weaver engines to reserve for **Medium** jobs.
- **Total Weaver engines configured**: This read only entry shows the number of Weaver engines still available. This is the Total engine count, minus the number of engines assigned to both **Small** and **Medium** jobs.
  To change this value, you must update the total amount of Weaver Engines in the Engines preferences page.

Target speed when running simultaneous jobs group:
If a single Output Creation task is running, it will be run at the full speed in the license. But when multiple tasks run in parallel, this speed has to be divided between them. By default, the maximum speed will be divided equally between tasks.

Use these settings to override what speed (in Pages Per Minute) should apply for each type of job. This allows you to prioritize one or more type of job above the others. For example, if your production process normally handles lots of small jobs, you might want to provide the smaller jobs greater speed (throughput) than the less frequent Medium and Large jobs.

But if there are so many small jobs that they start limiting the throughput of larger jobs? If there is always at least one small job running, then the maximum speed for the larger job will stay at half of the licensed limit. In this case, you might want to increase the target speed for Large jobs.

There are no hard and fast answers as to what settings will work best. It will likely be a matter of trial and error. But many sites will not need to change speed settings at all.

The options are:

- **Small job (PPM)**: Enter the target speed for **Small** jobs, in Pages Per Minute (PPM).
- **Medium job (PPM)**: Enter the target speed for **Medium** jobs, in Pages Per Minute (PPM).
- **Large job (PPM)**: Enter the target speed for **Large** jobs, in Pages Per Minute (PPM)

The entire licensed speed limit will always be distributed among jobs when running jobs simultaneously.

After assigning a target speed, any remaining licensed speed will be distributed throughout any simultaneous jobs by a ration of the target speed.

Some general rules of thumb to apply when distributing target speed:

- Do you need to change speeds? In many cases there will likely be no need to change the target speed.
- The target speed is not a guaranteed actual speed, but a speed limit that the engine is allowed to exceed in order to utilize the licensed speed.
- When changing the target speed, don't be overly precise, you are unlikely to get that exact value anyway. It will likely be a matter of trial and error.
- As long as you don't overdo it, the actual speed limit for a task will usually be higher than the target speed.
- If there is a chance of not getting the target speed, you will see a warning in the preference page. This is just a warning, and nothing will break if you choose to ignore it.

Buttons

The Parallel Processing preferences also provides you with buttons to :

- **Restore Defaults**. This option restores the preferences to Defaults. This applies to the current Preferences page only, not any other Preferences.
- **Apply**: This option applies the settings made within the current Preferences page, but does not close the Preferences dialog.

Server Clustering

Note: This option is only available in the Enterprise edition of OL Connect.

Note: This option is not available for Enterprise edition **Server Extension (Client)** installations

Server Clustering, only available in the Enterprise edition of OL Connect , enhances the processing capabilities of OL Connect Server by load-balancing jobs between the main Server module (master) and one or more Server Extension installations.

Setting up Server Clustering requires two or more installations of OL Connect on separate machines.

The Master server is setup by installing the OL Connect Server module during the "Installation Wizard" on page 25, while any Server Extension (Client) Servers are setup by installing the OL Connect Server Extension module instead.

Quick HowTo

1. Install the Master server (OL Connect Server module), making sure to select the MariaDB module.
2. Grant access to the MariaDB root user for the appropriate IP range on the Master server.
   See the "Binding and Root access on the Master server" below section for details.
3. Restart the MariaDB Service on the Master server.
4. Install Server Extension (Client) servers (OL Connect Server Extension module).
5. Install the license on the Master server.
6. Set the preferences for the engines (see "Engine configuration" on page 81) on both the Master and Server Extensions (Clients).
7. Install the license on the Server Extension (Client) servers.
8. Restart the Master server then, once restarted, restart the Server Extension (Client) servers.

What if MariaDB is not on the Master server?

It is possible to setup clustering with a MariaDB instance that is on a Server Extension (Client) server instead of on the master. In this case, the Server Extension (Client) must be installed with the MariaDB modules, the MariaDB instance configured (steps 2-4 above) then the master and other Server Extensions can be installed. The remainder of the instructions remain the same.

It is also possible to setup clustering with MariaDB/MySQL being installed completely separately from OL Connect, such as using an existing MariaDB/MySQL instance. For such cases, the instructions for the bind address must be followed, but the user does not have to be root. A user for the database must be created and have full access (GRANT ALL PRIVILEGES) to a database called "objectiflune" that can be created before Connect is installed.

Binding and Root access on the Master server

- The MariaDB server's binding must be set to accept connections from the Server Extension (Client) servers.
  To do this, open `C:\ProgramData\Objectif Lune\OL Connect\MariaDB\my.ini` in a text editor and change the `bind-address=127.0.0.1` line to `bind-address=*`

  Once the changes have been made and saved you need to restart the MariaDB

services.

- Access must be granted to the `root` user on the IPs from which the Server Extension (Client) server will connect.>
    - Open the (Windows) Command Prompt application and execute the command: `C:\Program Files\Objectif Lune\OL Connect\MariaDB\bin`

      Or open in PowerShell or Terminal. Whichever you are more comfortable with.
    - Type in the following command to connect to the database, where <password> is your MariaDB password:

      ```
      MariaDB --user=root --password=<password> olconnect
      ```

      > **Note:** This password is the MariaDB password, entered in the OL Connect installation process. The default OL Connect MariaDB schema is `olconnect`.

      You should see the prompt become `MariaDB [olconnect]>`
    - Here, type the command to allow the "root" user to be accessed from a specific IP subnet range.

      For example, to accept communication on 192.168.*.*, use:
      ```
      GRANT ALL PRIVILEGES ON objectiflune.* TO
      'root'@'192.168.0.0/255.255.0.0' IDENTIFIED BY 'password';
      ```
      The `password` is the one provided during installation.
      (ref: http://dev.mysql.com/doc/mysql-security-excerpt/5.5/en/adding-users.html)

> **Tip:** IP Subnets understanding is beyond the scope of this documentation. If you want to learn more, please see the Subnetwork article on Wikipedia (http://en.wikipedia.org/wiki/Subnetwork).

Clustering Preferences and Setup

When Server extensions are installed and connected to a Master, the following options and settings change in availability or behavior:

- The Clean-up Service requires special configuration on Clustering setups:
    - Clean-up service should not run simultaneously on all machines (staggered clean-up).
      Doing so may cause jobs not to be processed since all servers are busy.
    - Only the machine where the MariaDB/MySQL Server product is installed should attempt to clean-up database items. Essentially servers that do not have MariaDB/MySQL should only run Orphan File Clean-up.

Known Issues

This page lists important information about issues that apply to OL Connect 2024.2.

Issues with Windows Update italicizing Times New Roman font

The Windows updates KB5067036 and KB5068861 for **Windows 11** and **Windows Server 2025** install a new version (7.10) of the Times New Roman regular and bold font faces. This new version does not load correctly in the Firefox embedded browser of Connect. Consequently the browser falls back to the *italic* and ***bold italic*** font faces in both the Designer and in the output.

UPDATE: The Windows update KB5070311 installs a newer version of the Times New Roman font (7.11) that cures this problem. The preferred workaround is now to install this update.

We are currently working on a fix that is slated to be included in the 2026.1 release.

Issues with User profile names containing Unicode characters

Connect has issues with user profile names containing Unicode characters. Particularly when locating job resources contained under the user's profile folder.

This issue has been considerably improved in 2025.1.

Dynamic email attachments issue (2024.2.1 specific)

Issues with Dynamic email attachments, which were added using custom scripts or via the Dynamic Attachment wizard.
The issue was that dynamic email attachments would accumulate across multiple messages. Additionally, when testing in the Designer application, this could cause attachments to be unintentionally added to the template.

As of 2024.2.2 we now ensure dynamic email attachments are handled correctly, with each email containing only the intended attachments and templates being saved properly.

If you are using dynamic attachments in your templates, we recommend testing them after updating to confirm that everything is functioning as expected.

Issues with Virtual Stationery when Security settings used in PDF Output

When the “Security” functionality for PDF output is used in combination with “Separation” and “Print Virtual Stationary”, the virtual stationary will only be added to the first output file and not subsequent output files.

This issue is fixed in OL Connect version 2025.2.

OL Connect Send plugin issues when only Workflow installed (2024.2 specific)

Some older Microsoft Visual Studio redistributables were removed from the Workflow installation in 2024.2. It was discovered that this caused errors in OL Connect Send plugins if OL Connect itself was not installed. This issue is fixed in OL Connect 2025.1.

Adding entries to manually added detail tables (2023.2 onwards)

The *addRow()* functionality did not work for detail tables that were manually added to the Data Model, prior to OL Connect version 2023.2. The fix for this issue allowed the use of *addRow()* for detail tables that are manually added to the data model or which have no extracted rows. As a result, any detail table without extracted data is now recognized as an existing but empty table, with a length of 0.

Logging issue

The licensing log files are not being deleted after the selected number of retention days. The fix for this will be implemented in the 2025.1 release.

Since the licensing log files are produced by every instance of every engine, the number and size of these files can grow pretty quickly, causing excessive disk usage. If this causes production issues, the manual workaround is as follows:

Modify the file `%PROGRAMDATA%\Objectif Lune\OL Connect\logback.xml`.

The “file” <appender> section will have been updated by the **Number of days to retain logs** setting in the Preferences.

```
   <appender name="file"...>
...
      <rollingPolicy class-
s="com.objectiflune.infrastructure.logback.rolling.OLTimeBasedRollingPolicy">
        <fileNamePattern>${user.home}/${log.name}-%d{yyyy-MM-dd}-(${process_
id}).log</fileNamePattern>
        <maxHistory>10</maxHistory>
```

```
    </rollingPolicy>
  </appender>
```

Whilst the “licensingfile” will not:

```
  <appender name="licensingfile"...>
...
  </appender>
```

You should copy the `<rollingPolicy ... />` data from `<appender name="file"...>` to `<appender name="licensingfile"...>`.

Note: If you have setup a size based policy then you’d have `<file>...</file>` and `<triggeringPolicy .../>` tags to copy too.

When copying, the `<fileNamePattern>` section should also be modified to include the `-lic` string so that file name is different for the "licensingfile".

Mode switching issue with cloned sections

When switching a cloned section from Preview mode to Source mode, it may appear in Design mode instead. This issue will be addressed in a future release.

Remote translation files issue

Changes in a remote PO file (.rpo) are not shown in Preview mode or when double-clicking the .rpo file.
This will be addressed in a future release.

Performance not scaling as expected

When you have a machine with a lot of CPU cores and you configure Connect to run many **Merge Engines** (8+) simultaneously, the performance can be less than expected.
It has been reported that the CPU is not fully utilized and the performance per Merge Engines actually goes down, the more Merge Engines you add.

This will be addressed in a future release.

Unicode Variation Selectors issue

The Designer and Merge Engine can crash when a document or input data contains a Unicode Variation Selector. A variation selector is a special Unicode character in the range of U+FE00 - U+FE0F that indicates which variant of the previous character should be used.
The issue has so far only occurred on Windows 11 systems and will be fixed in a later release.

ODBC drivers do not all work with OL Connect

ODBC drivers do not all work with Java applications.
Since OL Connect is a Java application, it is strongly recommended you use JDBC instead.

Incorrect colors in print preview

Colors are not displayed correctly in previews generated by the Advanced Print Wizard.

Issues with downgrading data mapping configuration to 1.7

Downgrading a data mapping configuration to 1.7 format doesn't work properly. The furthest version one should go back to is version 1.8. This will be addressed in a future release.

Account permission issues

If you install and run OL Connect Designer and Server under different user accounts (for example, install under *User1* and run Designer as *User2*), account permission issues may occur.

It is recommended that you install and use OL Connect Designer and Server under the same user account.

Issues converting some images from PCL to PDF

Problems have been reported with the conversion of some images, from PCL files to PDF output.
In some, the image is replaced with a grey box. In others, the images convert, but with a vertical line added to the edge of the image.

This is due to an issue with a third party library which will be addressed in a future release.

Incorrect warning when sending email from Designer

When sending email from the Designer with a license that allows this, an incorrect warning is displayed stating that sending email is not covered by the license. The warning does not prevent the emails from being sent.

Master Page not affected by style rules for <body>

In the output, content in Master Pages is affected by style rules targeting <html>, but not by style rules targeting the <body> element. This is because in the output, they are placed outside the <body> of the section to which they are applied. When editing a Master Page, style rules targeting the <body> element will work, because the Master Page is not currently applied to a section, but they will have no effect in the output.

JDBC connection issue

In OL Connect version 2022.2, the SQL Server driver has been updated to version 10.2.0.jre11. As opposed to preceding versions, this driver by default attempts to connect to a JDBC database with encryption enabled if the *encrypt* parameter is missing from the connection string. This might break existing JDBC connections, particularly those defined in scripts and in the Database Wizard's 'Advanced Mode'.

To instruct this driver to not use encryption, the "`;encrypt=false`" parameter needs to be present in the connection string.

Installer issues

The new 2022.1 installer has some minor issues that will be fixed in a subsequent release. The issues are:

- After installation, the "*recent files*" list is cleared and the measurement units are reset from 'cm' to 'inch'.
- When updating from earlier 2022.1.x versions the bundled MariaDB connection settings are reset.

Dynamic tables causing issues

In some specific circumstances the dynamic tables feature does not behave correctly. The following scenarios should be avoided to prevent subsequent issues with the template:

- Using `page-break-before:always` on the top TR of a TBODY causes a problem and results in a pagination error
- It is possible to specify conflicting attributes on a TR element:
  - `page-break-before:always` or `page-break-after:always` combined with data-repeat
  - `page-break-after:always` combined with `page-break-before:avoid` on the next sibling TR (or similar combinations)

These issues will be addressed in a later OL Connect release.

DataMapper: Automatic Date/Time does not work with certain negative UTC time zone offsets

The new "*Automatic*" date parsing option in the DataMapper cannot parse dates with negative UTC time zone offsets of non-zero minutes.

For example: *2021-03-01T10:00-03:**00*** will work, but *2021-03-01T10:00-03:**30*** will not.

Positive time zones with non-zero minutes (such as *+10:30*) are unaffected.

The negative time zone offsets affected are: **UTC -02:30**; **-03:30**; **-04:30** and **-09:30**

This issue will be fixed in a later release. In the meantime, the workaround is to use "*Custom*" or "*ISO8601*" date parsing options in DataMapper.

CSS inlining colour values now converted to RGB

As of OL Connect 2021.2 when using the CSS inlining mode "*Apply CSS properties on elements*" for emails, all colour values are now converted to RGB, rather than to HEX.

Minor font changes

As of Connect 2021.1 we no longer round fonts to pixel size. This can lead to tiny differences in the output (of 1-2 pixels) when compared to earlier versions.

Changed Omit Master Page Back behaviour

In versions of Connect prior to 2020.2, if a page had no content except for a linked DataMapper background, then Connect would consider it an "empty" page when determining whether or not to "*Omit Master Page Back in case of an empty back page*" (available as an option in the sheet configuration of a section). This has now been fixed in Connect 2020.2, and such pages are no longer considered empty.

This could impact on the output from existing templates.

Print Wizard Preview showing some Landscape mode jobs in Portrait mode

Print jobs featuring associated Connect Output Presets which have Imposition options set to Landscape will not **Preview** in Landscape, but rather in Portrait mode. The printout is unaffected, however.

Issues associating PDF files with Connect

Under certain circumstances, Connect Setups prior to 2019.2 would fail when attempting to add the "Enhance with Connect" association with PDF files. This would then cause the setup to appear to fail.

Whilst this issue has been fixed in the Connect 2019.2 installer, if a user had previously experienced the issue and temporarily worked around it to complete the installation, then the Connect installer will fail on upgrade or uninstallation.

To get around this, a manual uninstall is required, or a modification to registry entries.

Issues when loading some Workflow plugins for the first time

Under some circumstances, certain of the new Workflow plugins introduced with Connect 2019.2 will fail to load correctly when run for the first time. Instead of opening the plugin dialog as expected, the plugin hangs and displays a message that it is "Loading UI .... ". This is due to an issue with a third party library which will be addressed in a future release.

To get around the problem, please close and reopen the plugin. The problem only occurs on the initial opening, and should work fine thereafter.

The license update introduced in OL Connect 2019.1 does not cater for existing AFP input licenses

AFP Input is an add on option for OL Connect licenses. Unfortunately, the update to the 2019.1 version of the OL Connect license does not cater for existing AFP input licenses.

If you have an existing AFP input license we ask that you contact your local Customer Care team after the initial license update is complete and have them add the AFP input option back into your license. (See (https://www.objectiflune.com/WebActivationManager/CareInfo.aspx.)

The Connect Print Manager is a standalone Connect tool that is used in production sites to manage print jobs. It can be installed and run on standalone machines without a Connect license.

The Update Client for Connect 2019.1 looks for a Connect license as part of the update process, but it will not find one on standalone Connect Print Manager installations. As a result the Update Client will not recognize that there is a Connect update available to the Print Manager machine.

In order to update Connect Print Manager to version 2019.1 you will need to download the Connect 2019.1 installer outside of the Update Client. The Connect 2019.1 installer can be

downloaded from the Web Activation Manager site. See https://www.objectiflune.com/webactivationmanager/. Or you could ask your local Administration for the installer, as it would likely already have been downloaded for installation by the document designers.

Page break changes in 2019.1

Improved page breaking in Connect 2019.1 might impact upon some existing templates. It is recommended that you check page breaking in existing jobs, where page breaks at a specific location are a known criteria.

Minor differences in AFP and IPDS output introduced in 2019.1

Connect 2019.1 now defaults to "*Scale to Fit*" for both **IPDS** and **AFP** output. Please note that this may have an impact when printing pre-existing Connect jobs (made in Connect versions predating 2019.1) on older printer models that do not support "*Scale to Fit*".

Issue with image placement in 2019.1 when using some customized AFP and IPDS Printer Definitions

An issue with image placement in Connect 2019.1 AFP and IPDS output was discovered just prior to the release. The issue is specific to AFP and IPDS 600 DPI Printer Definitions that are not set to "*Scale to Fit*".

As "*Scale to Fit*" is now switched on by default in all standard Connect 2019.1 AFP and IPDS Printer Definitions, none of those should encounter the issue.

This issue will be fixed in a subsequent patch release.

Issue after erroneous or incomplete update or re-installation

If one or more products (the OL Connect Designer, Connect Server, Software Activation, Print Manager, or Server Configuration Tool) or engines exit within a second of starting, this may be caused by a recent erroneous or incomplete uninstall before a reinstall or upgrade to a newer version of OL Connect.

This may be solved by deleting the `%UserProfile%\Connect\.eclipse` directory.

Backend database might require periodic maintenance

Databases maintain a variety of statistics in order to optimize performance. When high levels of inserts and/or deletions occur, the statistical data keeping can struggle to keep up. Over a period of prolonged and intensive processing this can result in a degradation in performance, with the whole database slowing down as it struggles to clean itself up.

In Connect terms the effect can be felt as the Data Mapper and/or Job Creation progressively slowing down.

To cure this issue, it is recommended that you periodically run manual maintenance on the backend database.

If using **MySQL**, the following script should be run in a query window:

```
set @a=null,@c=null,@b=concat("show tables where",
ifnull(concat(" `Tables_in_",database(),"` like '",@c,"' and"),''),
" (@a:=concat_ws(',',@a,`Tables_in_",database(),"`))");

Prepare `bd` from @b;
EXECUTE `bd`;
DEALLOCATE PREPARE `bd`;

set @a:=concat('optimize table ',@a);
PREPARE `sql` FROM @a;
EXECUTE `sql`;
DEALLOCATE PREPARE `sql`;

set @a=null,@b=null,@c=null;
```

If using **Microsoft SQL Server** run the following command in a query window:

```
sp_updatestats
```

Windows 10 Search service impacting Connect

The Windows 10 Search service runs as a background task, indexing files and folders. It has been noted that this background task is sometimes preventing files being added to the Connect temporary files folder when large amounts of files are being output and copied.

If this is an issue for you, we suggest disabling Search Indexing on the *C:\Users\<username>\Connect* folder.

This issue will be fixed in a later release.

Job Presets: External Sorting change introduced in 2018.2

Versions prior to 2018.2 did not correctly save the line end characters for external sort configurations in Job Presets, which meant the job could not be externally sorted. This issue has been fixed in version 2018.2. However, Job Presets created with an earlier version may still have the wrong line end character for external sorting. To fix this, open the Job Preset in the new version, reset the line end setting in the sorting options and then save the preset.

Engine Preferences: Backward Compatibility Issues introduced in 2018.2

- Prior to version 2018.2 Connect allowed a mixture of internal and external engines. As of OL Connect 2018.2 this is no longer allowed.

  When upgrading to OL Connect 2018.2 from such installations, the pre-existing settings will not only no longer apply, but can cause scheduling preference conflicts for the Merge and Weaver engines.

  To fix this, any pre-existing Connect installation that was running a mixture of internal and external Merge and Weaver Engines must first restore their scheduling preferences to the default values. This can be done by clicking on the **Restore Defaults** button in the *Scheduling* pages of the Server Preference or the Designer Preference dialogs.

- The Designer's scheduling settings are only updated correctly for the user actually performing the update.

Business Graphics: Backward Compatibility Issues introduced in 2018.1

As a consequence of changes in both the user interface and the underlying technology, Business Graphics made with a version prior to OL Connect 2018.1 may not display correctly when opened in version 2024.2.

The currently known backward compatibility issues are listed here:

All charts

- **Legend position**: The position of the legend is not converted. It defaults to 'left' in a converted chart.
- **Rows are series/Columns are series**: Only one type of data structure for detail tables is supported in the new version: the one that corresponds to the former *Columns are series* setting (with which charts display one series per record, one bar/point per data field). After conversion to 2018.1, charts that used the *Rows are series* setting will be displayed as if the *Columns are series* setting were used. Pie charts will thus only show data from the first record in the detail table. If the number of records in the detail table remains consistent, then the charts can be corrected by modifying the data mapping configuration (see Preparing a data table in the Online Help: https://help.uplandsoftware.com/objectiflune/en/olconnect/2024.2/Home.html). Otherwise the data needs to be transposed via script.
- **NOTE:** Expanded custom chart scripts cannot be converted.

Pie charts

- **Default colors**: The default colors (used when no pie chart colors are specified) have changed.

Line and Bar charts

- **Legend label**: In previous versions, the name for a values series (needed for the legend) could only be taken from a field outside the detail table. The value of the selected field would be used. Setting a different label required expanding the chart script. After conversion, the name of the field is used instead of the value. Setting a different label can now be done in the Edit Chart Script dialog (see Selecting data in a Business Graphic script in the Online Help: https://help.uplandsoftware.com/objectiflune/en/ol-connect/2024.2/Home.html).

Known Font issues

The following font(s) are known to have issues in OL Connect 2024.2:

- **Benton Sans CFF** font

Minor differences in PCL, AFP and IPDS output introduced in 2018.1

The browser component (Mozilla Gecko) used in the WYSIWYG editor of the Designer was updated for Connect 2018.1. This allows use of new CSS properties, such as flexbox.

However this update could lead to increased output file sizes for some PCL, AFP and IPDS jobs. This is generally not a cause for concern, however there might be some associated increase in processing times, as well as some minor differences in the output. For example, table line widths and font spacings might differ slightly (particularly for SMALL CAPS text), which could lead to slightly different word-wrapping in some circumstances.

Windows Server 2016 issue

As of OL Connect 2018.1 Connect is officially supported under Windows Server 2016.

Please note, however, that the **Update Client** application might be blocked by the enhanced security settings in Windows Server 2016.

To fix this, add http://updates.ca.objectiflune.com to the list of trusted web sites on that machine, or lower the internet access rules.

Limit of 100MB of image files within a single job

The browser component (Mozilla Gecko) used in the WYSIWYG editor of the Designer was updated for Connect 2018.1. This allows use of new CSS properties, such as flexbox.

However this update also introduced a limit of 100MBs for image files included within a single job. The limit is set at 100MB deliberately, as this allows *most* jobs to run faster. However, if a job requires more than 100MBs of image files, then the Connect image cache size can be increased to cater for such.

Please contact **OL Support** for instructions on how to modify the image memory cache value, if needed.

Print Output: Booklet Impositioning changes introduced in 2018.1

When Booklet Impositioning is enabled, all pages within a document need to be changed to duplex prior to Impositioning . The method for duplexing jobs has been changed to now always combine existing pages into the front and backsides of sheets, rather than adding empty backsides to any simplex pages.

The result is that now every document in the job becomes a booklet without any empty pages between the first page and the last page.

With some exceptions. Booklet Impositionings that require a multiple of 4 pages (*Saddle binding* and *Perfect binding*) will still get empty pages added, when needed.

Memory usage in clustered environments

If Database Petitioning is not selected, then OL Connect can fill the database faster than the Clean-up service can clear it (the ratio is approximately 3:1), in high speed clustered environments. Therefore if the system needs to run for some time under a considerable load, a larger database should be used to prevent production from being interrupted. Or set the clean-up service to use Database Partitioning.

We also recommend only the Master Server performing the database clean-up, or the local Server Extension if the database is not installed with the Master, to maximize performance. For **all** Designers, Server and Server Extensions except one, set the clean-up of the database entities to run every 100 months and disable the clean-up for any Designer which also has a Server or Server Extension on that machine.
Note that if the Designer is a stand-alone then it is not connected to the central database for clean-up purposes.

The Database Petitioning option can be found in the Clean-up Service preferences, see https://help.uplandsoftware.com/objectiflune/en/olconnect/2024.2/Home.html in the Online Help.

Issues with Microsoft Edge browser

The Microsoft Edge browser fails to display web pages when the Workflow's CORS option (in the HTTP Server Input 2 section) is set to "*". This issue will be resolved in a future release.

Installation paths with multi-byte characters

When installing the Chinese (Traditional or Simplified) or Japanese versions of Connect, if the user specifies an alternative installation path containing multi-byte/wide-char characters it can break some of the links to the Connect-related shortcuts in the Start Menu and cause an error to appear at the end of the installer. The workaround for the moment is to use the default installation path. The problem will be addressed in a later release.

Switching languages

Changing the language using the **Window > Preferences > Language Setting** menu option does not currently change all of the strings in the application to the selected language. This is a known issue and will be fixed in a later release.

In the meantime we offer the following workaround for anyone who needs to change the language:

1. Go to the .ini files for the Designer and Server Config:
    - `C:\Program Files\Objectif Lune\OL Connect\Connect Designer\Designer.ini`
    - `C:\Program Files\Objectif Lune\OL Connect\Connect Server Configuration\ServerConfig.ini`
2. Change the language parameter to the required one under Duser.language=en | es | de | fr | it | ja | ko | pt | tw | zh

Only one of the above language tags should be selected. Once saved, Connect will appear in the selected language at next start-up.

GoDaddy certificates

When installing Connect offline, dialogs allow installing the GoDaddy certificates. Most users should use the default settings and click **Next**. In some cases, however, this may not work correctly. For this reason those users should activate **Place all certificates in the following store** and then select the **Trusted Root Certification Authorities** as the target certificate store.

MySQL Compatibility

The minimum supported MySQL version is MySQL 5.6.

PostScript print presets

The print presets for PostScript were changed from Version 1.1 onwards meaning that some presets created in Version 1.0 or 1.0.1 may no longer work.

Any PostScript print preset from Version 1.0 that contains the following will not work in Version 2024.2: *.all[0].*

Any preset containing this code will need to be recreated in Version 2024.2.

Available Printer Models

Note that only the single Printer Model (Generic PDF) will appear on the **Advanced** page of the **Print Wizard** by default.

To add additional printer models click on the settings  button next to the Model selection entry box.

External resources in Connect

There are certain limitations on how external resources can be used in Connect. For example if you want to link a file (e.g., CSS, image, JavaScript etc.) from a location on the network but you do not want to have a copy of the file saved with the template you need to do the following:

1. The resource must be located where it can be accessed by all Servers/Clients run as users. Failure to do this will cause the image to appear as a Red X in the output for all documents which were merged by engines which could not access the file. The job will terminate normally and the error will be logged.
2. The file must be referenced via a UNC path e.g.,

   file:////w2k8r2envan/z%20images/Picture/Supported/JPG/AB004763.jpg

   - UNC paths are required because the services will be unable to access mapped network drives (Windows security feature).
   - The engine processing the job will look on the local file system for the direct file path leading to the “resource not found” issue mentioned above.

Caution: The Designer itself and Proof Print do not use processes that run as services and they may find local files with non-UNC paths which can lead to the false impression that the resources are correct.

Using Capture after installing Workflow 8

If OL Connect Workflow 8 is installed alongside PlanetPress Suite Workflow 7, Capture can no longer be used within Workflow 7. The plugins are now registered uniquely to Workflow 8 and the Messenger for Workflow 7 is taken offline. It is only possible to use Capture from OL Connect Workflow 8 thereafter.

Capturing spool files after installing Workflow 8

If OL Connect Workflow 8 is installed alongside PlanetPress Suite Workflow 7, the PlanetPress Suite 7 option to capture spool files from printer queues will no longer function. The solution is to use OL Connect Workflow 8 to capture spool files from printer queues.

Color Model in Style Sheets

The color model of colors defined in a style sheet can sometimes change after editing the style sheet. This is a known issue and will be addressed in a subsequent release.

Image preview in Designer

If in the Windows Internet settings (**Connection Settings > LAN configuration**) a proxy is enabled, but "Bypass proxy settings for local addresses" is not checked, the image preview service, conversion service and live preview tab in the Designer will not work and exhibit the following issues:

- Images will be shown as 0 size boxes (no red 'X' is displayed).
- Live preview does not progress, and when re-activated reports "browsers is busy".

To fix the issue you must check the "Bypass proxy settings for local addresses" option.

Merge/Weaver engines when printing

The print operation in the Designer will automatically detect whether the Merge\Weaver engines are available and display a message for the user to retry or cancel if not. Once the Merge/Weaver engine becomes available and the user presses retry the print operation will proceed as normal. This message can also occur in the following circumstances:

- If the server is offline and you are not using Proof Print.
- On some occasions before the Print Wizard opens.

REST Calls for Remote Services

The Server will accept REST calls for all remote services and will make commands wait indefinitely until the required engines become available. The Server will log when it is waiting for an engine and when it becomes available. Note that there is no way to cancel any commands other than stopping the Server.

Print Content and Email Content in OL Connect Workflow

In OL Connect Workflow's Print Content and Email Content tasks, the option to Update Records from Metadata will only work for fields whose data type is set to String in the data model. Fields of other types will not be updated in the database and no error will be raised. This will be fixed in a later release.

Print Limitations when the Output Server is located on a different machine

The following limitation may occur when using the Print options from a Designer located on a different machine to the Output Server:

- The file path for the prompt and directory output modes is evaluated on both the client AND server side. When printing to a network share it must be available to BOTH the Designer and Server for the job to terminate successfully.
- The Windows printer must be installed on both the Server and Designer machines.
- When printing via the Server from a remote Designer, the output file remains on the Server machine. This is remedied by selecting "Output Local" in the Output Creation configuration.

VIPP Output

Some templates set up with landscape orientation are being produced as portrait in VIPP. It can also sometimes be the case that text and images can be slightly displaced. These are known issues and will be addressed in a later release of Connect.

Magic Number changes when installing Docker

Installing Docker on a system where Connect has already been installed may impact Connect's licensing mechanism and require reactivation.

Note: Installing Connect after Docker has already been installed will not cause issues.

Uninstalling

This topic provides some important information about uninstalling (removing) OL Connect 2024.2.

To uninstall OL Connect select the application from within the Add/Remove programs option under the Control Panel. This will start the **OL Connect Setup Wizard** in uninstall mode.

> **Note:** The **OL Connect Setup Wizard** might take some seconds to appear.

Important: Stop any active Anti-Virus software before uninstalling Connect back-end database.

Some anti-virus systems are known to block the uninstallation of MariaDB datafiles, as well as blocking the uninstallation of the MariaDB database application itself. If you wish to uninstall the Connect back-end database it is **highly recommended** that any anti-virus application be stopped prior to uninstalling OL Connect , as otherwise the Connect uninstallation might not work correctly.

Impacts upon other applications and services

- The Uninstall will terminate the installed Server / MariaDB service(s).
- The following applications / services should be stopped in a controlled fashion, before running the OL Connect Uninstall:
    1. OL Connect
    2. Connect products on remote systems which refer to this MariaDB database.
    3. Any Connect Workflow using OL Connect plugins which connect to this server.
    4. OL Connect Server Extensions (Enterprise edition only) on remote systems which connect to this machine as the Master Server.

Uninstallation Wizard

The uninstallation is done by running the OL Connect Setup Wizard in uninstall mode. The Wizard contains the following important pages:

1. **OL Connect Setup**: This page allows selection of what is to be done. An modification to the existing installation (**Add or Remove Features**) or full Uninstall.
   NOTE: If the Uninstall option is selected the **Remove user data** option is made available. For information about exactly what data would be saved or deleted, please see "Pre-existing User Data" on page 58.

2. **Component Selection**: If **Add or Remove Features** was selected on previous screen, this page provides options for adding or removing Connect features.
   For detail descriptions of the options, see Installation "Component Selection" on page 27 .

Legal Notices and Acknowledgments

Warning: OL Connect is protected by copyright law and international treaties. Unauthorized reproduction or distribution of this program, via any means, in part or in whole, may be prosecuted to the full extent of the law.

The license agreements for the associated open source third party components can be found in the following installation folder: *C:\Program Files\Objectif Lune\OL Connect\Legal Notices*

This application uses the following third party components:

- **Adobe PDF Library** which is either a registered trademark or trademark of Adobe Systems Incorporated in the United States and\or other countries.
- **Adobe XMP Core** Copyright © 1999 - 2010, Adobe Systems Incorporated. All rights reserved.
- **ASM librares** which are distributed under a BSD 3-clause License
- **Bouncy Castle** which is distributed under an MIT license (MIT License)
- **Dart Sass**, which is available for use and modification under the MIT license (MIT License).
- **DD Plist** which is distributed under an MIT license (MIT License)
- **Eclipse Gemini Blueprint** which is distributed under the terms of the Apache Software License Version 2.0. This product includes sub-components with separate copyright notices and license terms.
- **Eclipse Nebula** This application also uses the following Eclipse Nebula components which are distributed under the terms of the **Eclipse Public License (EPL) v 2.0** :
    - Radiogroup Widgets
- **Eclipse Persistence Services Project (EclipseLink)**, Copyright © 2007, Eclipse Foundation, Inc. and its licensors. All rights reserved. This is distributed under the terms of the Eclipse Public License Version 1.0 and Eclipse Distribution License Version 1.0.
- **Fugue Icons** by Yusuke Kamiyamane which are distributed under the terms of the Creative Commons Attribution 3.0 License.
- **Gecko** which is distributed under the terms of the Mozilla Public License (MPL) Version 2.0. Information on obtaining Gecko can be found on the following page: https://wiki.mozilla.org/Gecko:Getting_Started
  NOTE: This library has been modified for Connect. To obtain copies of the modified library please contact your local Objectif Lune Support team.

- **Glassfish** This application also uses the following Glassfish components which are distributed under the terms of the **Eclipse Public License (EPL) v 2.0** :
    - HK2 API module
    - HK2 Implementation Utilities
    - Javax Inject
    - Jersey
    - Jersey Bean Validation
    - Jersey Container Jetty HTTP
    - Jersey Container Servlet
    - Jersey Container Servlet Core
    - OSGi Resource Locator
    - ServiceLocator Default Implementation

  Information on how to download the Glassfish project sources can be obtained from here: https://mvnrepository.com/search?q=org.glassfish
- **Glassfish Java Mail** which is licensed under the terms of the Common Development and Distribution License (CDDL) Version 1.0. Information on how to download the Glassfish source can be obtained from here: https://wikis.oracle.com/display/GlassFish/Java+EE+7+Maven+Coordinates
- **Google Core Protocol Buffers** library which is distributed under a BSD 3-clause License
- **Hamcrest Matchers** Copyright © 2000-2006, www.hamcrest.org. All rights reserved.
- **HyperSQL**, Copyright © 2001-2010, The HSQL Development Group. All rights reserved.
- **IcoMoon**. Connect uses unmodified icons from IcoMoon (https://icomoon.io/#icons-icomoon) which have been made available under the Creative Commons By 4.0 license (https://creativecommons.org/licenses/by/4.0).
- **ICU4J 4.4.2** Copyright © 1995-2013 International Business Machines Corporation and others. All rights reserved.
- **J2V8** which is distributed under the terms of the Eclipse Public License (EPL) Version 1.0. The source code for J2V8 can be obtained from the following location: https://github.com/eclipsesource/j2v8

- **Jacob Java Com Bridge** which is licensed under the terms of the GNU Lesser General Public License (LGPL) Version 2. The source code for this can be obtained from the following location: http://sourceforge.net/projects/jacob-project/files/jacob-project/
- **Jakarta Annotation API** which is distributed under the terms of the Eclipse Public License v 2.0 (EPL2). The source code for this can be obtained from the following location: https://github.com/jakartaee/common-annotations-api
- **Jakarta Enterprise Beans** which is distributed under the terms of the Eclipse Public License v 2.0 (EPL2). The source code for this can be obtained from the following location: https://github.com/jakartaee/enterprise-beans
- **Jakarta Expression Language** which is distributed under the terms of the Eclipse Public License v 2.0 (EPL2). The source code for this can be obtained from the following location: https://github.com/eclipse-ee4j/el-ri
- **Jakarta JSON Processing** which is distributed under the terms of the Eclipse Public License v 2.0 (EPL2). The source code for this can be obtained from the following location: https://github.com/jakartaee/jsonp-api
- **Jakarta Interceptors** which is distributed under the terms of the Eclipse Public License v 2.0 (EPL2). The source code for this can be obtained from the following location: https://github.com/eclipse-ee4j/interceptor-api
- **Jakarta Mail** which is distributed under the terms of the Eclipse Public License v 2.0 (EPL2). The source code for this can be obtained from the following location: https://-github.com/eclipse-ee4j/mail
- **Jakarta Messaging** which is distributed under the terms of the Eclipse Public License v 2.0 (EPL2). The source code for this can be obtained from the following location: https://github.com/eclipse-ee4j/messaging
- **Jakarta Resource API** which is distributed under the terms of the Eclipse Public License v 2.0 (EPL2). The source code for this can be obtained from the following location: https://github.com/jakartaee/connectors
- **Jakarta RESTful Web Services** which is distributed under the terms of the Eclipse Public License v 2.0 (EPL2). The source code for this can be obtained from the following location: https://github.com/jakartaee/rest
- **Jakarta Servlet** which is distributed under the terms of the Eclipse Public License v 2.0 (EPL2). The source code for this can be obtained from the following location: https://projects.eclipse.org/projects/ee4j.servlet

- **Jakarta Transaction API** which is distributed under the terms of the Eclipse Public License v 2.0 (EPL2). The source code for this can be obtained from the following location: https://github.com/jakartaee/transactions
- **Jakarta WebSocket** which is distributed under the terms of the Eclipse Public License v 2.0 (EPL2). The source code for this can be obtained from the following location: https://github.com/jakartaee/websocket
- **Java Advanced Imaging Image I/O Tools** which is distributed under a BSD 2-clause License (BSD-2-Clause license)
- **Java XmlHttpRequest** which is licensed under the terms of the GNU Lesser General Public License Version (LGPL) 2.1. The source code for this can be obtained from the following location: https://github.com/objectifluneCA/java-XmlHttpRequest
- **Jaxb OSGI** which is licensed under the terms of the Common Development and Distribution License (CDDL) Version 1.1. The source code can be found at the following location: https://bitbucket.org/uplandsoftware/vendor/src/master/java/github.com/javaee/jaxb-v2/
- **JBCrypt** library which is distributed under the ISC License (ISC)
- **Jersey** which is distributed under the terms of the Common Development and Distribution License (CDDL) Version 1.1. Information on how to obtain the source code can be found at the following location: http://repo1.maven.org/maven2/org/glassfish/jersey/jersey-bom
- **Jersey Multipart** which is distributed under the terms of the Common Development and Distribution License (CDDL) Version 1.1. Information on how to obtain the source code can be found at the following location: http://repo1.maven.org/maven2/org/glassfish/jersey/jersey-bom
- **JNA Version 3.5.1** which is distributed under the terms of the GNU Lesser General Public License Version (LGPL) 2.1. The source code for this can be obtained from the following location: https://github.com/twall/jna/releases
- **jQuery library** which is distributed under an MIT license (https://jquery.org/license/).
- **jQuery validation library** which is distributed under an MIT license (JQuery Validation licence).
- **Logback** which is distributed under the terms of the Eclipse Public License (EPL) Version 1.0. The source code for Logback can be obtained from the following location: https://logback.qos.ch/download.html

- **MariaDB** which is distributed under the terms of the GNU General Public License Version 2. Information on how to obtain the source code can be found at the following location: https://mariadb.org/get-involved/getting-started-for-developers/get-code-build-test/
- **MariaDB Java Client** which is distributed under the terms of the GNU Lesser General Public License Version (LGPL) 2.1. The source code for this can be obtained from the following location: https://mvnrepository.com/artifact/org.mariadb.jdbc/mariadb-java-client
- **Minimatch Java** which is distributed under an MIT license (MIT License).
- **Objectweb ASM**, Copyright © 2000-2011 INRIA, France Telecom. All rights reserved.
- **Oracle JDBC Driver** which is licensed by the Oracle Free Use Terms and Conditions (FUTC) licence.
- **org.eclipse.equinox.weaving.springweaver** which is distributed under the terms of the Eclipse Public License (EPL) Version 1.0. The source code can be obtained from the following location: https://github.com/osgi-forks/dynaresume
- **PDF Renderer** which is licensed under the terms of the Lesser General Public License (LGPL) Version 2.1. The source code can be obtained from the following location: https://mvnrepository.com/artifact/pdf-renderer/pdf-renderer
- **Polyfills** which is licensed under the Unlicense license. The source code can be obtained from the following location: https://github.com/inexorabletash/polyfill.
- **RapidJSON** which is distributed under an MIT license.
- **Relique CSV Driver** which is licensed under the terms of the Lesser General Public License (LGPL) Version 2.1. The source code can be obtained from the following location: https://sourceforge.net/p/csvjdbc/code/ci/csvjdbc-1.0.31/tree/
- **Rhino 1.7R4 and 1.7.7.1** which are licensed under the terms of the Mozilla Public License (MPL) Version 2.0. The source code for these can be obtained from the following location: https://developer.mozilla.org/en-US/docs/Mozilla/Projects/Rhino/Download_Rhino
- **SASS Embedded libraries**, which are made available for use and modification under the MIT license (MIT License).
- **Saxon** which is distributed under the terms of the Mozilla Public License (MPL) Version 2.0. The source code for this can be obtained from the following location: http://-sourceforge.net/projects/saxon/files/Saxon-HE/9.6/

- **Servlet API** developed by Sun as part of the Glassfish project and licensed under the terms of the Common Development and Distribution License (CDDL) Version 1.0. Information on how to download the Glassfish source (as part of Java EE platform) can be obtained from here: https://wikis.oracle.com/display/GlassFish/Java+EE+7+Maven+Coordinates
- **Simple Logging Facade for Java (SLF4J)** Copyright © 2004-2017 QOS.ch. All rights reserved.
- **SpotBugs Annotations** which is licensed under the terms of the GNU Lesser General Public License (LGPL) Version 2.1. The source code for this can be obtained from the following location: https://github.com/spotbugs/spotbugs
- **Spring Framework** which is distributed under the terms of the Apache Software License Version 2.0. This product includes sub-components with separate copyright notices and license terms.
- **StAX Utilities** Copyright © 2007, StAX Utilities Project. All rights reserved.
- **Stax2 API** Copyright 2010-2018 FasterXML.com.
- **Tern** which is distributed under the terms of the Eclipse Public License (EPL) Version 1.0. The source code for tern can be obtained from the following location: https://github.com/angelozerr/tern.java
- **Web Services Description Language for Java** which is distributed under the terms of the Common Public License v 1.0. The source code for this can be obtained from the following location: http://wsdl4j.cvs.sourceforge.net/viewvc/wsdl4j/
- **XStream Core** library which is distributed under a BSD 3-clause License
- **XULRunner** which is distributed under the terms of the Mozilla Public License Version 2.0. The source code for this can be obtained from the following location: http://ftp.mozilla.org/pub/mozilla.org/xulrunner/releases/latest/source/
- **zziplib** which is licensed under the terms of the Mozilla Public License (MPL) Version 1.1. The source code for this can be obtained from the following location: http://sourceforge.net/projects/zziplib/files/zziplib13/

Portions of certain libraries included in this application which are distributed under the terms of the **Mozilla Public License** have been modified. To obtain copies of the modified libraries please contact your local Objectif Lune Support team.

Apache Software License Components

This application also uses the following components which are distributed under the terms of the **Apache Software License Version 2.0**:

- Apache ActiveMQ
- Apache Aries
- Apache Batik
- Apache Commons Beanutils
- Apache Commons CLI
- Apache Commons Codec
- Apache Commons Collections
- Apache Commons Compress
- Apache Commons Digester
- Apache Commons Imaging
- Apache Commons IO
- Apache Commons JCS Core
- Apache Commons Lang
- Apache Commons Logging
- Apache Commons Math
- Apache Commons Pool
- Apache Commons Text
- Apache Commons Validator
- Apache Felix and dependencies
- Apache Geronimo
- Apache HttpClient
- Apache HttpClient Mime
- Apache HttpClient Windows features
- Apache HttpComponents Core HTTP/1.1
- Apache HttpComponents Core HTTP/2
- Apache HttpCore
- Apache Log4j API

- Apache Log4j to SLF4J
- Apache POI
- Apache ServiceMix
- Apache Tika libraries
- Apache Xerces2 Java Parser
- Apache XML Graphics
- Apache XML Beans
- ASN1bean
- Barcode4j
- Gemini Blueprint Core
- Gemini Blueprint Extender
- Gemini Blueprint Extensions
- Gemini Blueprint IO
- Google Collections
- Google GSON
- Google Guava
- Hibernate Validator
- HikariCP
- Jackcess
- Jackson JSON processor
- Jackson Module Jakarta Xmlbind Annotations
- Jakarta Contexts and Dependency Injection
- Jakarta Dependency Injection
- Jakarta Validation API
- JCIP Annotations
- JDBI
- JetBrains Java Annotations
- Jetty
- Jetty alpn client

- Jetty webapp
- Jetty Websocket
- Jetty Websocket API
- JSON Path
- JSON Sanitizer
- JSON Small and Fast Parser
- Kotlin Common Standard Library
- Kotlin Standard Library for JVM
- Liquibase
- LMAX Disruptor
- Minidev
- Nimbus JOSE+JWT
- Objenesis
- OkHttp
- OkIO
- OpenCSV
- OpenTelemetry API Incubator
- OpenTelemetry for Java
- OpenTelemetry Instrumentation for Java
- OPS4J Pax Web
- org.eclipse.persistence.logging.slf4j
- org.json.simple
- OSGI
- PAC4J
- Sisyphsu DateParser
- Sisyphsu Retree
- Snakeyaml
- SNMP4J
- SparseBitSet

- Spring Dynamic Modules
- Swagger
- Tika
- UCanAccess
- Woodstox
- xalan
- XML Resolver

Eclipse Technology:

This Software includes unmodified Eclipse re-distributables, which are available at www.eclipse.org.
The Eclipse re-distributables are distributed under the terms of the Eclipse Public License version 1.0 (https://www.eclipse.org/legal/epl-v10.html) or the Eclipse Distribution License version 1.0 (https://www.eclipse.org/org/documents/edl-v10.php).

The following disclaimer applies for all of the Eclipse Distribution Licensed libraries:
THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Eclipse Adoptium OpenJDK

This application uses unmodified re-distributables from the Eclipse Adoptium OpenJDK project. The Licenses used in that project are:

- Build scripts and other code to produce the binaries, the website and other build infrastructure are licensed under Apache License, Version 2.0.

- OpenJDK code itself is licensed under GPL v2 with Classpath Exception (GPLv2+CE).
- Eclipse OpenJ9 is licensed under Several licenses.

Further Components:

- Portions of this software are copyrighted by **The FreeType Project** (www.freetype.org). All rights reserved.
- This product includes software developed by **JSON.org** (https://www.json.org), which is distributed under the JSON License (JSON License)
- This product includes software developed by the Indiana University Extreme! Lab. For further information please visit http://www.extreme.indiana.edu/