pedago

INSTALLATION INSTRUCTIONS

Date	Version	Status
2026-10-27	1.3	Final

FOR THOSE RESPONSIBLE FOR TECHNICAL OPERATIONS AND INSTALLATIONS

Installation Instructions for Pedago lön 64-bit

Valid from October 2026



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Update and installation

This manual is intended for technical staff and covers everything relating to the installation and maintenance of Pedago lön: new installations, updates and troubleshooting. If anything about the installation is unclear, please do not hesitate to contact us. We are happy to help!

We at Pedago are constantly working to improve our information. If you have questions or comments about this document, please contact us at support@pedago.fi or call +358 18 12060.

1 This document concerns the new 64-bit version of Pedago lön

1.1 About this document

The most important information regarding the upgrade to this version of Pedago lön is found in this section (1) and in sections 7 and 8, which describe the conversion and the conversion program.

1.2 Why we have made the change

Pedago lön has been rebuilt as a 64-bit application. This provides better compatibility with modern operating systems and other software, and removes the limitations of the 32-bit architecture. In connection with the rebuild, the user interface was also thoroughly reviewed.

1.3 Important to note

Take a screenshot of the information under Hjälp, Om Pedago lön (Help, About Pedago lön), so that you know where the program is installed and the address of your database server. You may need this information during the conversion.

Also locate your license details for Pedago lön: the license number, company name and key. You should have these archived together with your agreement. If you cannot find them, contact us and we will send them again!

1.4 Coexistence of 64-bit and 32-bit versions

Both versions can be installed and run side by side without conflict. Installing the 64-bit version and converting the system database (lpsys) does not affect existing program files or settings. Note that the desktop icon is updated and will from now on start the new version — the 32-bit version remains in its original folder, however, and can be started manually, if needed.

1.5 Installing 64-bit Pedago lön

The installation is similar to the 32-bit version, with one exception: Crystal Reports runtime is installed as a separate step after Pedago lön has been installed. This happens automatically, as described below.

Remember to run the installer as *Administrator* and to select the option *För alla användare* (for all users).

1.6 Converting the file lpsys.mdb

In Pedago lön 2.x, the license details, configuration and the list of companies were stored in a local Access database, lpsys.mdb. In the 64-bit version this information has been moved to the database server (usually SQL Server) and is stored there in the database Pedago_lpsys.

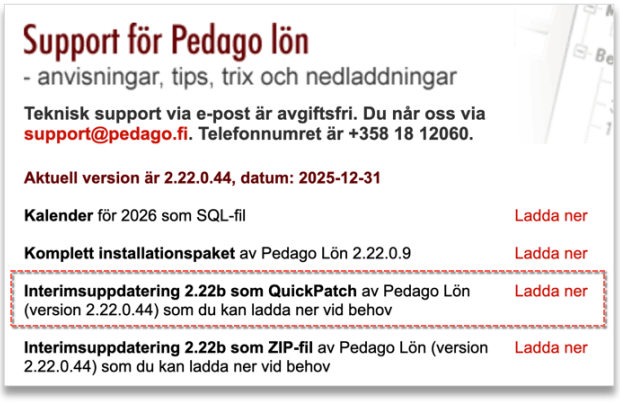
The program finds the database via the connection file lpsys.dsn. If the file is missing at startup, the program asks for connection details and automatically creates both lpsys.dsn and the database Pedago_lpsys. Note that this requires the user to have permission to create databases in SQL Server, and that the program is run with administrator rights.

To simplify the migration, a conversion tool is included that reads the settings from the existing lpsys.mdb and creates the database Pedago_lpsys. Instructions for the tool are provided in a separate document on our website.

2 Updates and versions in general

Pedago lön is normally updated once a year with a major update. This is what is called the "komplett installationspaket" (complete installation package) on the download page. In addition, we may publish smaller enhancements or fixes during the year, which we call interim updates or service updates:

Example from www.pedago.fi/pa:



The website always shows which is the latest version of the program. Interim and service updates are cumulative. In the case above, you therefore get the current version 2.22.0.x by first installing the complete package and then any updates.

Interim and service updates are available in two forms.

1. A QuickPatch, which is an executable file, and
2. An archive of individual files.

You can then either run the QuickPatch or copy the files manually from the archive. Customers who have automated update systems usually use the latter.

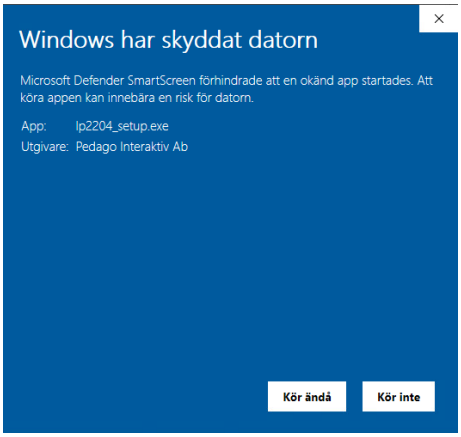
3 Performing an interim or service update

3.1 Download and install the QuickPatch

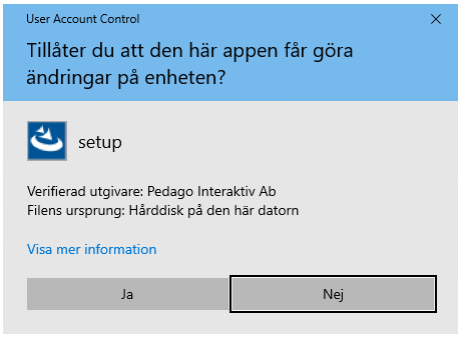
Go to www.pedago.fi/pa and download **Interimsuppdatering x.xxb som QuickPatch** (interim update; e.g. `update_xxxb.exe`) to a suitable folder on your computer.

3.2 Install the Pedago lön update

- Right-click the installation file and select **Kör som Administratör**.
  This option ("Run as administrator") is especially important under Windows 10/11.
- If Windows reports that it has protected your computer, click "**Mera info**" and "**Kör ändå**" (More info and Run anyway):

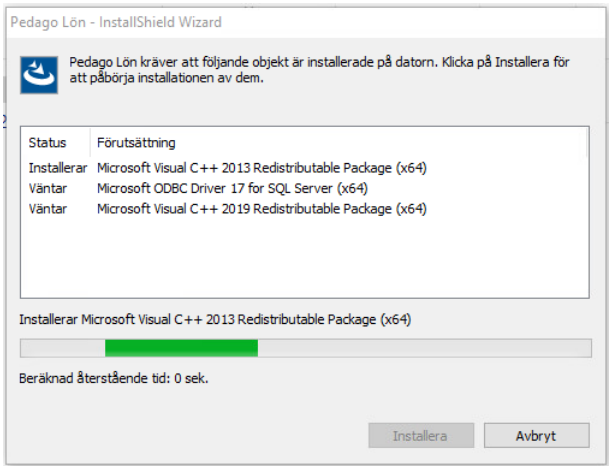


- User Account Control (UAC) tells you that Pedago is a "Verifierad utgivare" (Verified publisher), which means that the file really comes from us.
- Click **Ja** (Yes):



- Install "**För samtliga användare**" (for all users)

  - Otherwise Windows places the files in odd locations.
- Automatic installation of .NET components and security update
  - This version of Pedago lön requires **Microsoft .NET version 4.8.1 or later and certain** other modules to be installed. If they are not present, they will be installed.



Note regarding a possible request to restart: You may have to restart the installation and/or your computer after this.

- If you choose to restart when the installer requests it, the installation will continue after the restart.
  - However, it will not run “as administrator”, and you will get a strange error message saying that installation files cannot be found.
  - If this happens, cancel and run the installation again.

4 Before running the first payroll of the year

After the program update, and before the first payroll run of the year is performed, updated income types (inkomstslag) and benefit types (förmånsslag) can be downloaded and installed.

> **NOTE!** Ask the payroll administrator whether these have already been loaded by someone else or whether this needs to be done.

4.1 Load updated SQL files for income types and benefit types

Some income types and benefit types may change from year to year.

Updated income types can be downloaded when needed from our support page, www.pedago.fi/pa. There are two files.

The first (which concerns all payroll administrators) contains updated income types relating to **inkomster** (income). The second, which mainly

concerns municipalities (pensions, support payments and the like), contains updated types that the Tax Administration calls **förmåner** (benefits).

4.1.1 If the types have already been loaded for the new year

If payments have already been made in the new year before an update is to be installed, the SQL files have (presumably) already been loaded. In that case this does not need to be done again.

4.1.2 If it is a new year and no payments have yet been made for the new year, the SQL files may need to be loaded

If Pedago lön is updated shortly after the start of a new year, the SQL files may need to be updated.

Do as follows:

- Go to https://pedago.fi/pa and download the separate files for inkomstslag (income types) and förmånsslag (benefit types).
- Start Pedago lön and select "**Kör SQL fil**" (Run SQL file) under the menu "**Verktyg**" (Tools).
  - Load the file `Inkomstslag_20xx.sql` which concerns "inkomster" (income).
- If you run payroll for a municipality (or another organization that pays, for example, pensions, support payments and the like), you must also load the types that concern "förmåner" (benefits).
  - Load the file `formansslag_20xx.sql` which concerns "förmåner" (benefits).

5 Things to note and known issues

Under this heading we collect general points, and problems that may arise.

5.1 Creating new companies must be done with the correct permissions

If you create new companies using the button in the login window, you must log in with an account that allows you to create new databases.

Note also that the user specified in "Ge rättigheter till" (Grant rights to) must exist in SQL Server. It must also not be '**sa**'

- If this user does not exist, or is '**sa**', the new database will indeed be created, but no record will be added to the company register.
  - This can, however, be done manually under **Registervård/Basregister/Företag** (Register maintenance/Base register/Companies).

Note also that you must have "`Microsoft ODBC Driver 17 for SQL Server`" or "`Microsoft ODBC Driver 13.1 for SQL Server`" installed.

5.2 Date format

We recommend that you follow the international standard (ISO 8601), which stipulates that dates are written as 2019-11-17. ISO 8601 is also the national standard in most European countries. The payroll program itself is, however, "date-agnostic" and presents dates in the way you have specified under **Nationella inställningar** (Regional settings) in Windows.

We recommend that you use one of the options `yyyy-MM-dd` or `dd.MM.yyyy` as the date format.

5.3 Online help when the program is run from a network drive

If the payroll program is run from a network drive (as opposed to a local drive such as `C:\`) the online help (F1) will show an empty window. The cause is a security setting in Windows.

- To change this setting, run the file `AllowHTMLHelp.reg` located in the folder `\Tools` under the folder where Pedago lön is installed.

5.4 The system database (LPSYS.MDB) is now in SQL Server

The purpose of the system database is to store certain parameters and the list of companies. It used to be a file named lpsys.mdb, but after the conversion to 64-bit the same information is stored in a table on your database server. The table is called Pedago_lpsys.

The program finds it via the file lpsys.dsn in the program directory:

```
[ODBC]
DRIVER=ODBC Driver 17 for SQL Server
UID=lpsys
Trusted_Connection=Yes
AnsiNPW=No
DATABASE=Pedago_lpsys
APP=Microsoft Open Database Connectivity
SERVER=x.x.x.x
Description=Pedago Lön systemdatabas
```

We have developed a special conversion program that transfers your information from lpsys.mdb to a database named Pedago_lpsys. See the separate documentation for this program.

You can also create this database manually with the SQL file Skapa_lpsys.sql and create lpsys.dsn manually, or you can let the program create lpsys.dsn automatically at first startup.

If you want to create this file by hand, there is a template in the subdirectory tools. You can open it in a text editor, fill in the IP address or DNS name manually in the file, and then copy it to C:\Program Files\Pedago

5.5 The reporting tool Crystal Reports runtime

> **NOTE!** Pedago lön requires Crystal Reports runtime 25 or later (13_0_25).
> If you do not update the Crystal runtime, the program will otherwise work but crash when you print!

The installer automatically installs the latest version, which is `sp39`.

If you do not use the installer but instead copy the program files manually, note that the requirement is version `13 sp25` (13_0_25), or later, of Crystal Reports.

Runtime files can be downloaded separately from our support page https://www.pedago.fi/pa.

5.6 Installation under Windows 10/11

The installer is now built with InstallShield 2025 and should work flawlessly. We now test only with Windows 10/11, but it should also work on earlier versions of Windows.

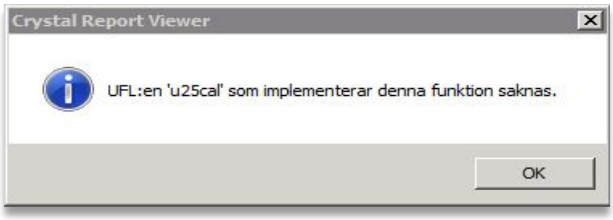
The installation file is signed with a certificate.

5.7 Run the installation as administrator

This is especially important under Windows 10/11 or Windows Server.

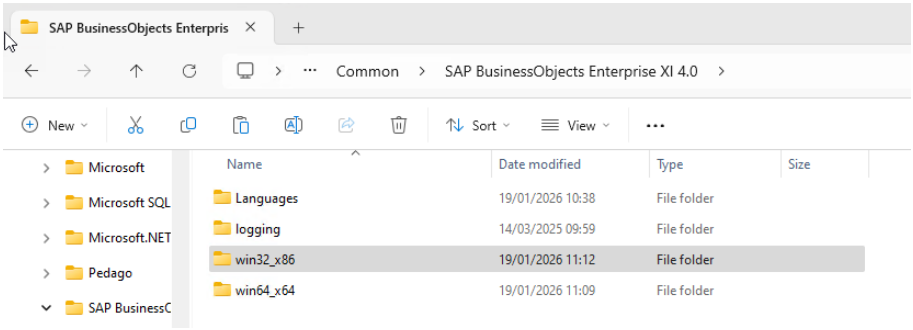
5.8 u25cal.dll, u212Cal.dll or u25C128.dll missing

The following error should not occur with the new version of Crystal Reports, but we choose to document it anyway.



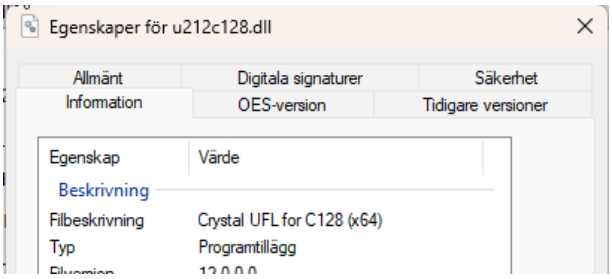
The files `u25cal.dll, u212cal.dll` and `u25C128.dll` are add-ons to Crystal Reports that we have written to handle certain calendar-specific functions such as barcodes, dates of birth and age calculated from the personal identity code. The installer places these files in the correct location, which is `[Program]\SAP BusinessObjects\Crystal Reports for .NET Framework 4.0\Common\SAP BusinessObjects Enterprise XI 4.0\win32_x86`.

Note that different directories apply to 32-bit and 64-bit Pedago lön, and that there are different versions of these files for 32-bit and 64-bit:



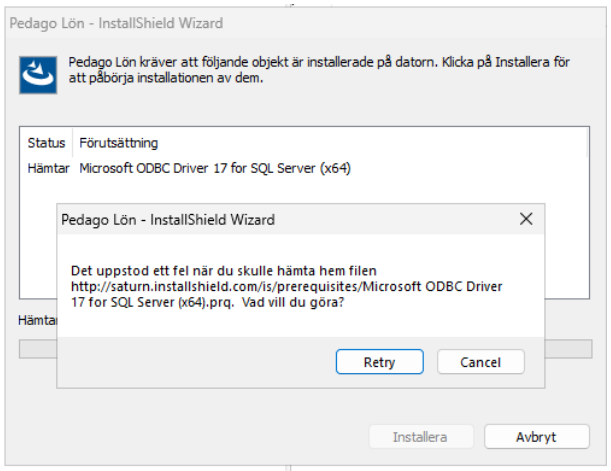
DLLs for 32-bit must be in the directory win32_x86, while 64-bit DLLs must be in win64_x64. The installers place the files in the correct directory automatically.

- If Crystal Reports is upgraded, these files may need to be moved manually.
- Note that you can tell whether a DLL is 64-bit by right-clicking the DLL file and selecting Egenskaper, Information (Properties, Details):



5.9 Temporary problems during installation

Occasionally temporary installation problems can occur, such as this one:



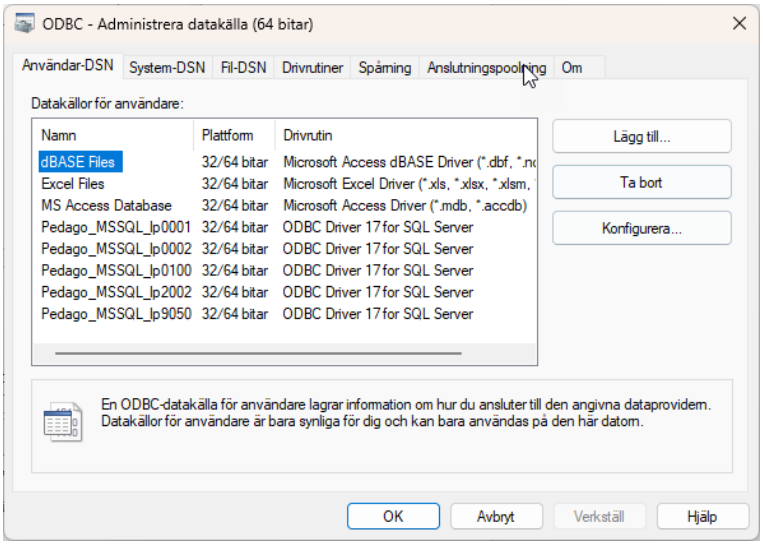
You can then try waiting a while, or alternatively download the installation file manually from Microsoft and install it before installing Pedago lön.

To make this easier, the installation file for ODBC Driver 17 is also available on our support page.

5.10 Data sources are created automatically

Note that the .NET version of Crystal Reports requires a data source for each connection.

For this reason, Pedago lön creates such a data source for each company:



The name is created as `Pedago_Databastyp_lp<nummer>`.

In the example (above), 1, 2, 100 etc. are SQL Server databases. Note that these data sources are created if they do not already exist.

- In version 2.20.5.x (and later) these are checked at startup and corrected automatically if, for example, the address of the database server has changed. If there are still problems after a server move, you can delete them in ODBC Administrera datakälla (ODBC Data Source Administrator), and they will be recreated the next time you print.

6 Reinstallation, change of computer and the like

When reinstalling, for example when changing computers, there are a few things you should check.

- Select “Hjälp”, “Om Pedago lön” (Help, About Pedago lön) in the menu bar:



- Note the version number (in this example 2.20.4.2) and installation folder (usually `C:\Program Files\Pedago`). Also note which database you have.

6.1 Backup

6.1.1 Back up the folder above

- Take a copy of the registry keys that Pedago lön creates.
  - These contain volatile data such as window sizes and positions, but also things such as settings in certain menus, e.g. “Enter för nästa fält” (Enter for next field).
- Start Regedit (Start, Kör regedit) and navigate to `HKCU\Software\Pedago lön`
- Choose Arkiv, Exportera (File, Export).
- Save the file somewhere you can find it later.

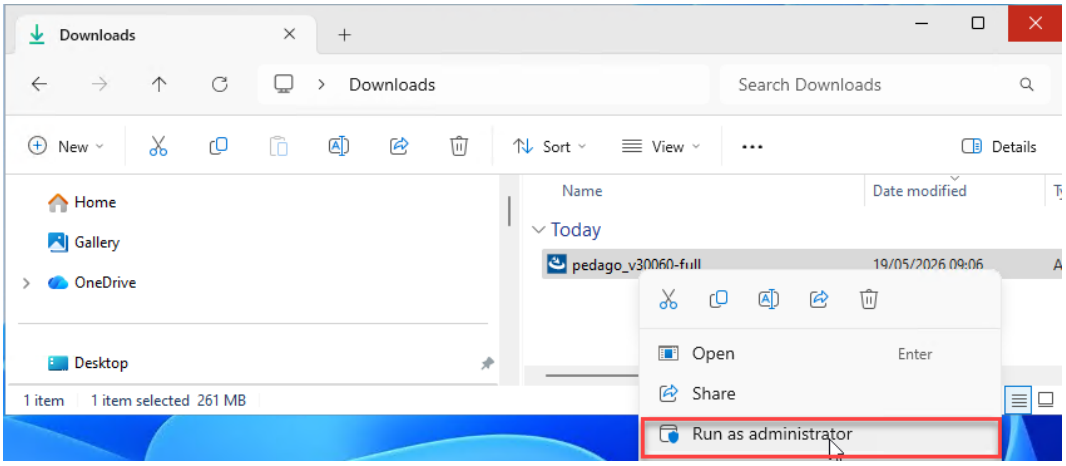
6.2 Installation or reinstallation

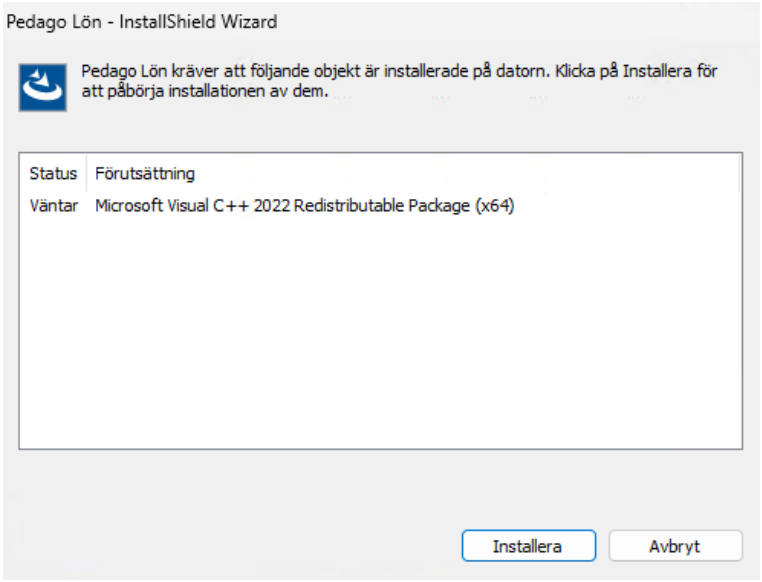
If you, for example, replace a payroll administrator's computer, it is important to check the program version on the old computer so that you do not mistakenly install an old version on the new one.

The installation procedure itself is the same regardless of whether it is a new installation or a reinstallation.

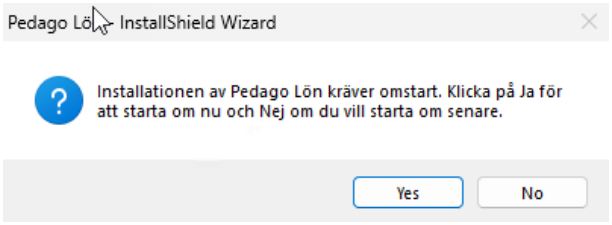
- Download the latest version from www.pedago.fi/pa.
- Then start the installer, logged in as a user with administrator rights.

- The installer first checks whether certain required components and service packs are installed, and installs them if necessary:

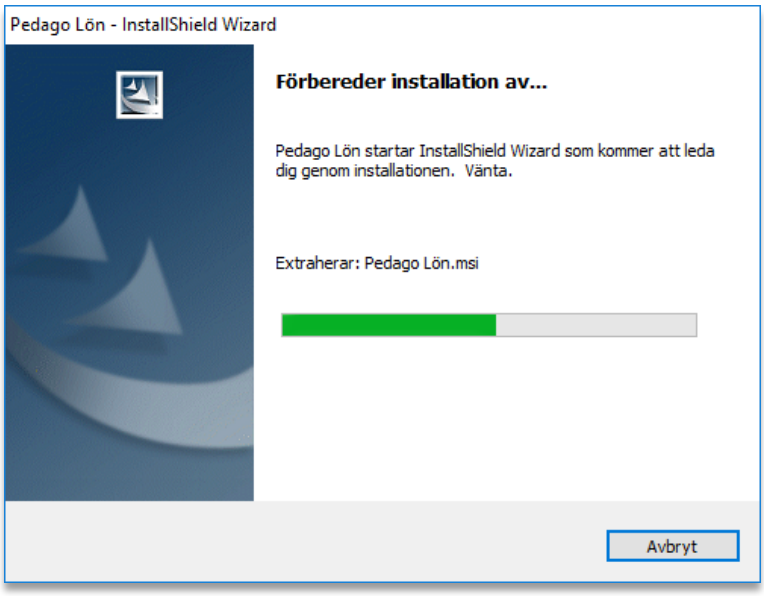




After this you may get the following message:

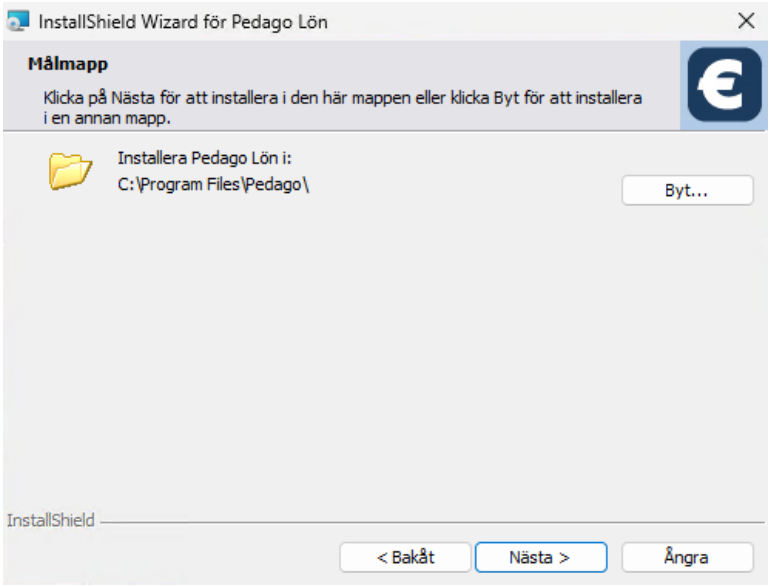


If you then choose to restart, Windows will, after the restart, try to run the Pedago lön installer again, but not as Administrator. This will not work. You will be asked where you want to “lagra installationspaketet” (store the installation package). Cancel, and then start the installer again using “Kör som administratör” (Run as administrator).

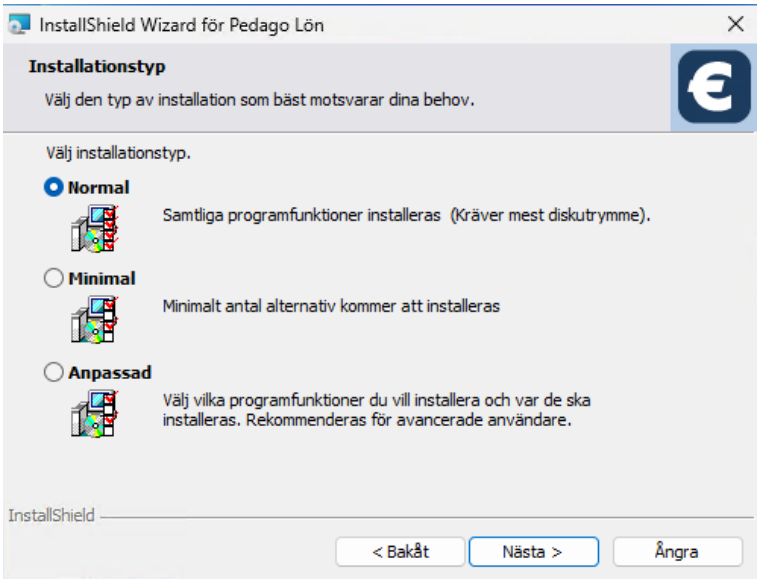

Pedago Lön - InstallShield Wizard
Förbereder installation av...
Pedago Lön startar InstallShield Wizard som kommer att leda dig genom installationen. Vänta.
Extraherar: Pedago Lön.msi
Avbryt


InstallShield Wizard för Pedago Lön
pedago lön
Välkommen till InstallShield Wizard för Pedago Lön
InstallShield(R) Wizard kommer att installera Pedago Lön på datorn. Klicka på Nästa för att fortsätta.
Varning! Programmet är skyddat av finsk och internationell upphovsrättslagstiftning samt av internationella konventioner.
< Bakåt
Nästa >
Ångra

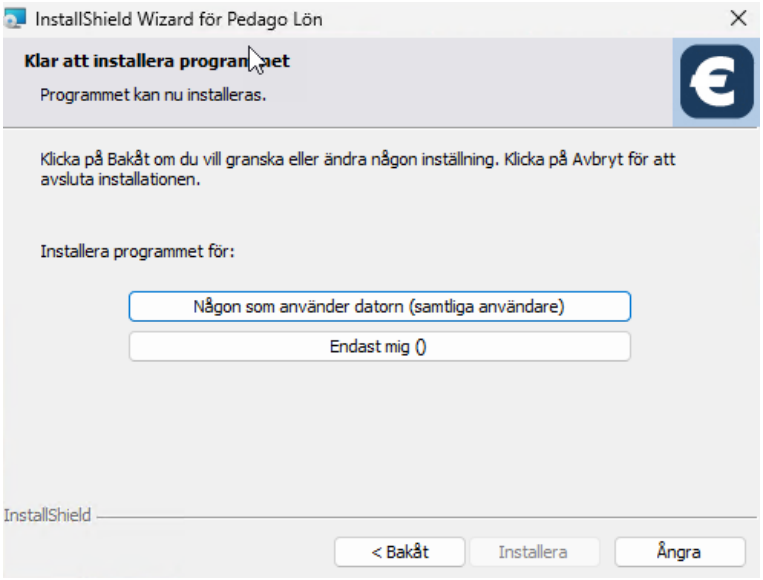
If you are reinstalling Pedago lön and want the program in a folder other than the default folder, change it here, but we recommend that you install in the suggested folder:

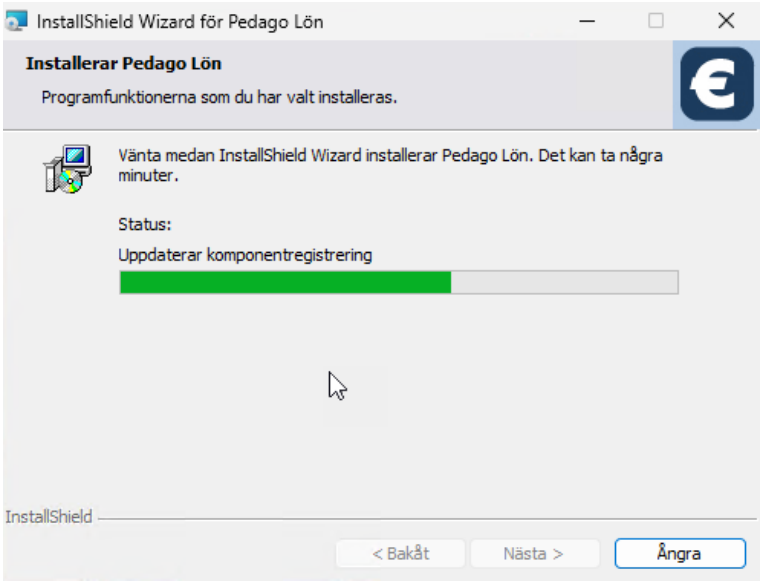


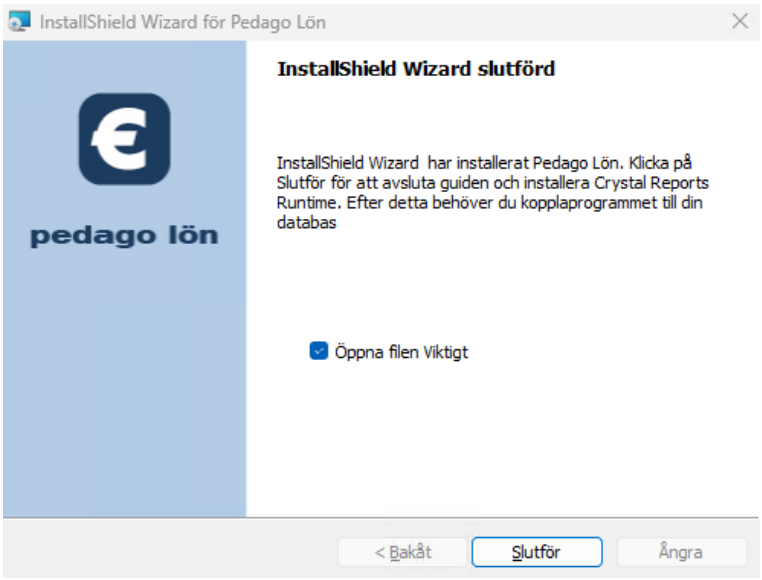
Select “Normal”:



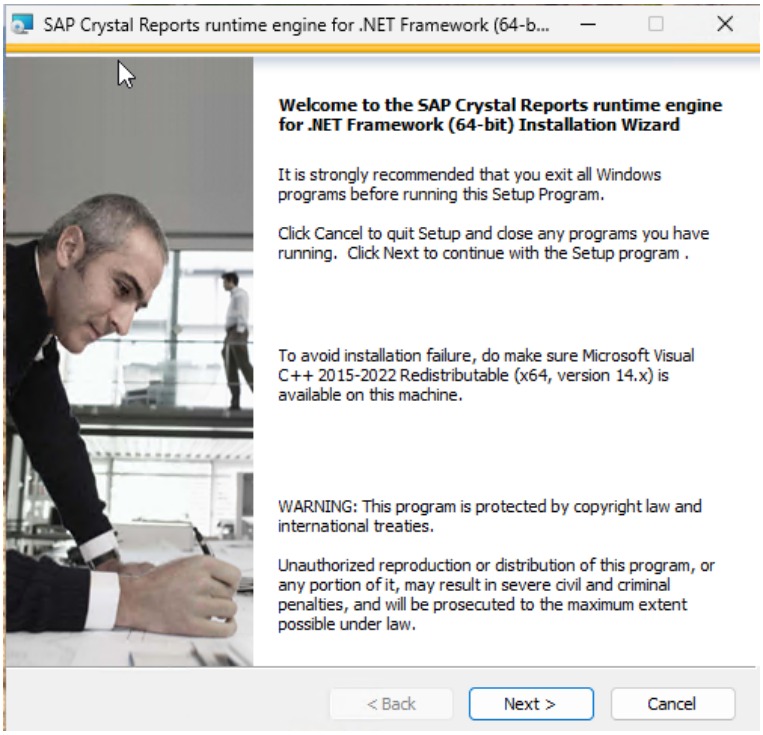
Change to “Samtliga användare” (All users):

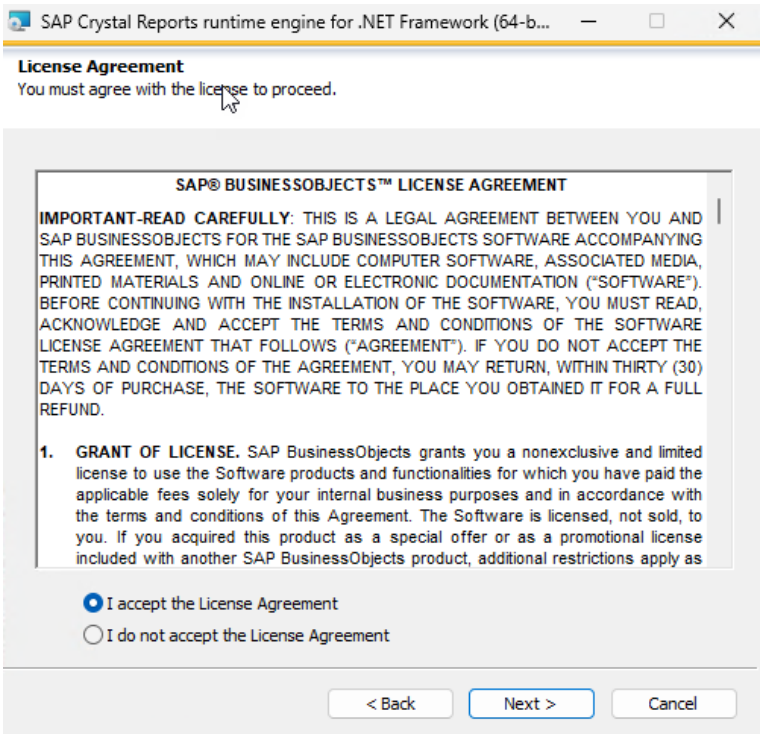


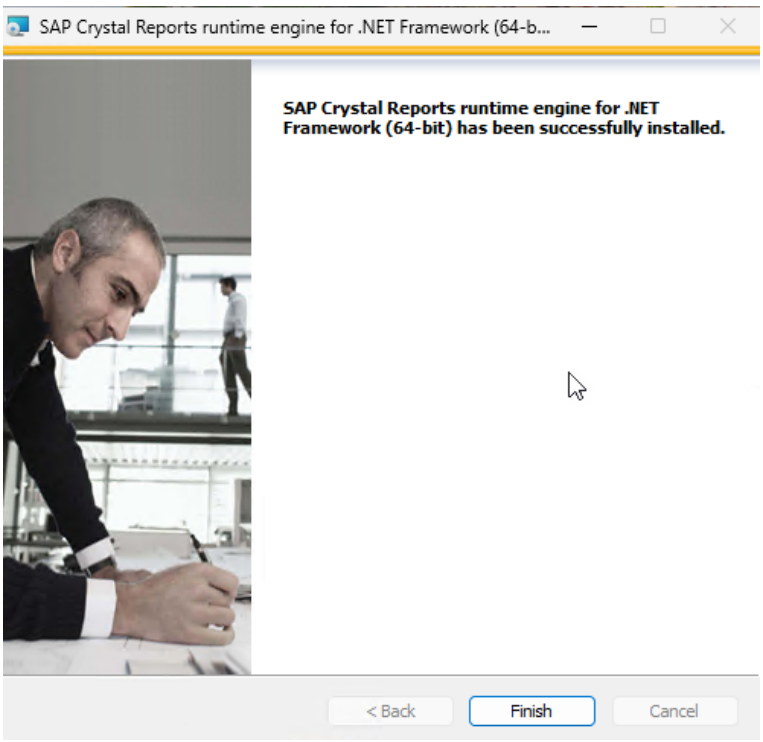




- After this, Crystal Reports Runtime will be installed. See below.
- You should let the installer “Öppna filen Viktigt” (Open the file Viktigt/Important) so that you can print and read it.
- Make sure you have the latest version! There may be service updates that need to be installed.



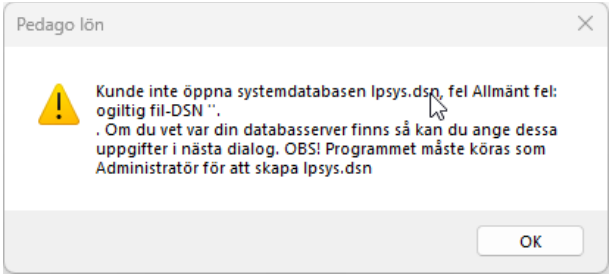




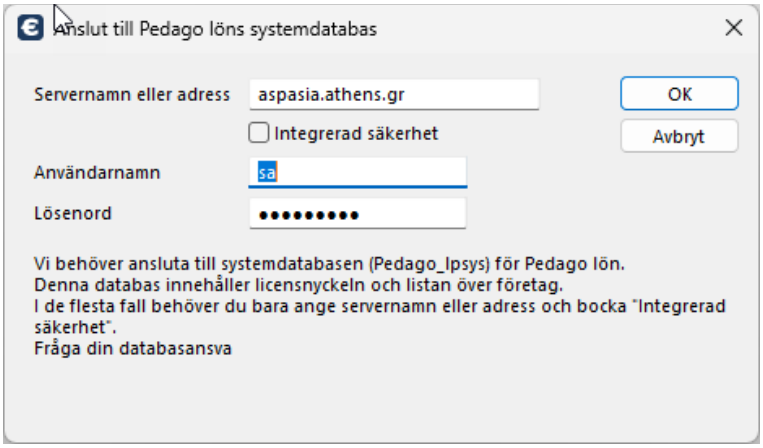
The Pedago lön icon will be replaced. The program files for Pedago Lön 2.x will, however, remain and can be uninstalled immediately or later, if the user wants to be able to work in both versions for a while.



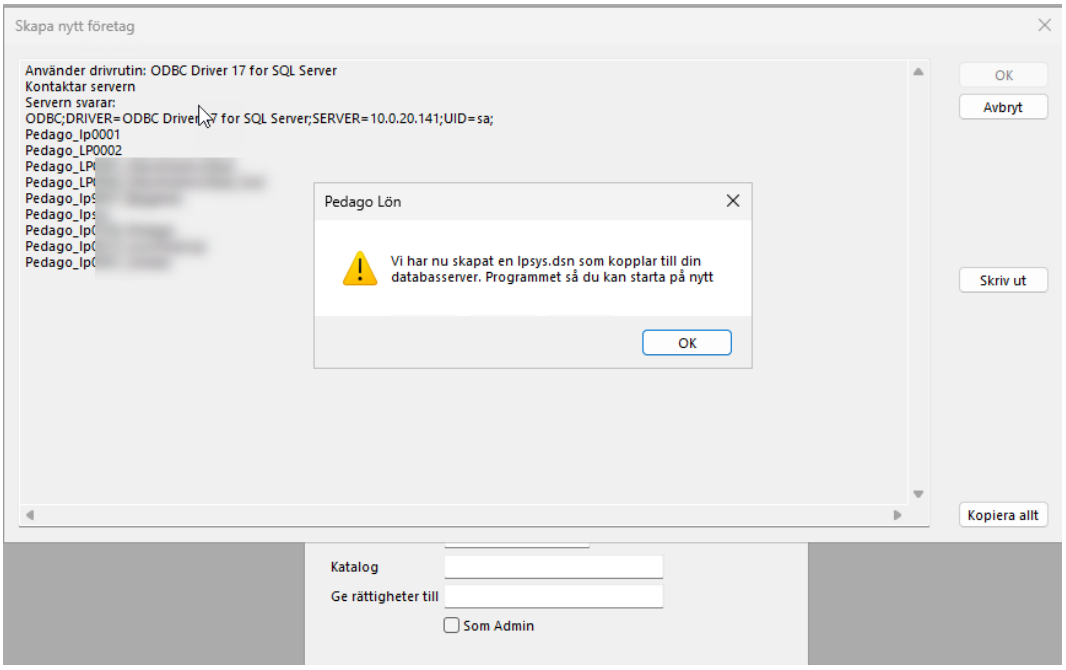
At first startup you may get this:



You can then let Pedago lön create a new connection to your system database:



In the vast majority of cases you use integrated security, and then you only enter the server name or IP address and tick “Integrerad säkerhet” (Integrated security). You then do not need to enter a user name and password.



For this to work, you must start Pedago lön as administrator the first time.

6.3 Restore from backups

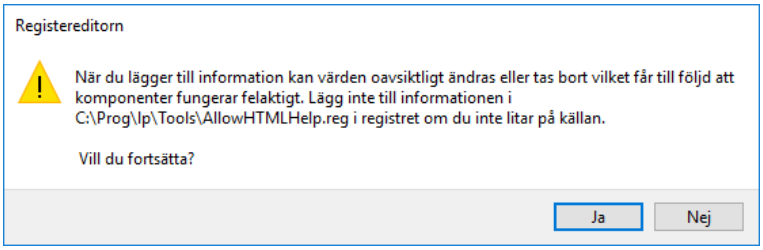
6.3.1 Restore information from backup

In a reinstallation you may need to restore information from the copy you made in step 6.1.

6.3.2 Restore the registry

- Start Utforskaren (Explorer)
- Browse to the file you created in section 6.1.1 (`pedago.reg`) and double-click it.

- Answer **Yes** to the question of whether you want to add the information to the registry.



6.3.3 Restore files for database connections

Copy the files `lpsys.dsn` and all `lpxxxx.dsn` files from the backup to the installation folder (`lpxxxx.dsn` files are `lp0001.dsn`, `lp0002.dsn`, etc.).

6.3.4 Restore lp.exe if necessary

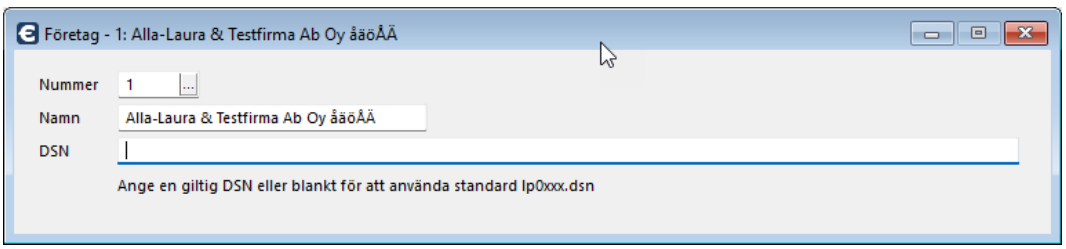
If you start the payroll program after the reinstallation and find that you have an older version, you must also copy the file `lp.exe` from the backup, or install the latest QuickPatch.

6.4 Database connections and login

Pedago lön finds its databases via DSN files and strings. The first database is Pedago_lpsys, which contains the license details and the list of which companies have been created. The program finds it via the file `lpsys.dsn`:

```
[ODBC]
DRIVER=ODBC Driver 17 for SQL Server
UID=lpsys
AnsiNPW=No
DATABASE=Pedago_lpsys
APP=Microsoft Open Database Connectivity
SERVER=x.x.x.x
Description=Pedago lön systemdatabas
```

When you then select a company, say 1, Pedago lön first looks for a DSN string in the company register, Registervård, Basuppgifter, Företag (Register maintenance, Basic data, Companies).



Second, it looks for a file named lp0001.dsn in the program directory:

```
[ODBC]
DRIVER=ODBC Driver 17 for SQL Server
```

```
MARS_Connection=Yes
UID=sa
AnsiNPW=No
DATABASE=Pedago_LP0001_Acme
APP=Microsoft Open Database Connectivity
SERVER=x.x.x.x
Description=Pedago Lön på SQL-Server 2017
```

Note that the driver specified after DRIVER= must be installed. From version 2.20.5.x, ODBC Driver 17 for SQL Server is installed automatically when the program is installed.

To summarize the whole process:

1. You start Pedago lön via a shortcut that starts `lp.exe`.
2. `Lp.exe` opens the file `lpsys.dsn` in the same directory to find `Pedago_lpsys`.
3. `Pedago_lpsys` is opened to read the license details and the list of companies. If license details are missing, the program asks you to enter them.
4. The login dialog is displayed.
5. Select a company and click OK.
6. Say you have selected company 1: The file `lp0001.dsn` is opened, and the server specified there is contacted using the driver specified there.

6.4.1 Problems that may occur

The program asks for license details after reinstallation.

- Check that the file `lpsys.dsn` points to the correct server. `lpsys.dsn` is a text file that can be opened with Anteckningar (Notepad).

Error message: **Kunde inte öppna databasen: Login failed** ("Could not open the database: Login failed")

- The user does not have permissions to the database.

Error message: **Kunde inte öppna databasen: Datakällan hittades inte** ("Could not open the database: Data source not found")

- The driver specified in `lpxxxx.dsn` is not installed on the computer, or is misspelled.

6.5 Certificates for the Tax Administration API and the Incomes Register

Pedago lön shows how long a certificate remains valid. When the certificate is added, it is also checked that the certificate and key belong together. In some cases this has not been so, even though the certificate had been requested several times. You can then check this manually with the following commands:

```
openssl x509 -noout -modulus -in 1090894-4.cer | openssl md5
openssl rsa -noout -modulus -in 1090894-4_private.key |
openssl md5
```

You can also use other openssl options for checking. A Windows version of `OpenSSL.exe` is located in the folder `\Tools`.

Problems when requesting certificates can be caused by old versions of OpenSSL that may be installed on the computer. One way to test this is to copy `LpCert.exe` and the files `libcrypto-1_1.dll` and `libssl-1_1.dll` into the same directory and run the certificate request from there.

7 The conversion program

You can find both the program and the installation instructions at www.pedago.fi/pa

- **Tool for converting from Pedago Lön version 2.x to 3.x**
- **Installation instructions for converting Pedago Lön 2.x to 3.x**

8 Other technical information

8.1 Development environment for Pedago lön

This version of the program is built with Microsoft Visual Studio 2022 and the installer with Installshield 2026 R1.

For certain functions we use OpenSSL 3.5.2 and libcurl 8.15

Payslips sent by e-mail in PDF format are encrypted using Apache PDFBox.

8.2 Known issues

8.2.1 There is a beta setting in certain versions of Windows 10/11 that causes problems

The symptom is that you get the error message “data truncated” immediately at startup. If so, go to Språkinställningar, Administrativa språkinställningar (Language settings, Administrative language settings). Click Ändra systemspråk (Change system locale) and clear the option “Beta: Använd Unicode…” (Beta: Use Unicode UTF-8 for worldwide language support)

If it is on, everything, including data from the database, will be interpreted as UTF-8, and that does not work.