Continia Document Output

Install and configure Continia Document Output Service

Contents

Introduction

The purpose of this document is to show the installation of the Continia Document Output Service and how to configure it.

Continia Document Output will subsequently be referred to in this document as DO.

Features

The Continia Document Output Service solves multiple issues regarding printing and file handling in Business Central (BC) where a web client (a browser) is the primary entry point to interacting with the application. Especially in an era where the "cloud" is becoming more and more popular, the Continia Document Output Service is a must-have if your clients want to keep easily printing from an on-premise printer, that cannot be accessed from outside of the organization. Furthermore, the Continia Document Output Service can be configured to download documents from Business Central if your clients want to store a local copy of them as well.

In the following sections, we will give you a more detailed description of each feature so that you can decide if Continia Document Output Service is the right choice for you before you spend time on installing and configuring it.

Local printing

Enables you to print documents from Business Central to your local PC without interacting with the browser printing dialog.

Printing from the web client can be a cumbersome process – especially if you were used to use a Role Tailored Client or running the service tier internally which provided direct access to printers.

When the local printing feature is enabled, you will be able to select and print directly to your locally configured printers without interacting with the browser printing dialog. This is done by direct communication between the web client and Continia Document Output Service, and therefore, the service must be installed and have local printing enabled on each PC where you want to print to locally installed printers. You will only be able to access printers installed on your own local PC, meaning you won't be able to access printers on your colleagues' PCs even though they have the service installed and local printing enabled.

If you don't want to install Continia Document Output Service on each PC but instead want to use the Document Output print queue, then you should use the Print Server feature instead.

Print Server

Enables automatic printing by connecting to the Document Output print webservice in BC and pulls print jobs from a queue.

One of the key features in Document Output is the document queue. When a document has been added to the queue, Document Output processes entries in the queue and, depending on the template configuration, sends the document as an email, creates a print job or a file download job (see the "File Download" section for that part) or several of these possibilities. But what if we don't have direct access to printers or a file system?

Usually, service tiers in an on-premises solution have direct access to printers. In a cloud or cloud-like solution, for example a self-hosted on-premises solution in Azure, we aren't guaranteed to have access to printers located on company premises since they might not be available from the "outside world". Therefore, we've added the Print Server feature. When the print server feature is enabled and configured in Continia Document Output Service, it pulls print jobs from the print queue through the Document Output

web service responsible for printing. Furthermore, you can configure to which printer you want to print a specific document by using the Printer Selection in Business Central (please note that you must use the Document Output printer selection).

If you want to use the print server feature, we recommend the following:

- Install it on a desktop PC that is **not** turned on/off regularly. If the PC is turned off or moves to a location where printers aren't accessible anymore, then print jobs will either fail or be printed to another printer (if the "Use the default printer if the specified in BC isn't found" is enabled in the Continia Document Output Service configuration).
- Don't set the default printer to one that requires user interaction, for example a PDF printer, as it might cause the service to "hang" if it is running as a Windows service (background services aren't able to prompt the user).
- Basic knowledge on how Business Central web services work and are accessed.

Please also note that the print server feature only enables document printing from the print queue in Business Central. The service won't enable other Business Central users to select a printer and send a print job directly to it.

File Download
Enables automatic download of documents by connecting to the Document Output file download webservice in BC.

As with printers (mentioned in the Print Server section), we aren't guaranteed to have access to a file system in a cloud or cloud-like solution where we can store documents if your client would like to do that. Therefore, Document Output also has a with a file queue to which documents that must be downloaded are added. If the file download feature is enabled and configured in the Continia Document Output Service, then files are automatically downloaded and stored in the specified folder (if accessible).

 If you want to use the file download feature, we recommend the following:

- Install it on a desktop PC that is **not** turned on/off regularly. If the PC is turned off or moves to a location where, for example, a network drive isn't accessible, then download jobs will fail and must be manually restarted.
- Basic knowledge on how Business Central web services work and are accessed.

Requirements

The PC that is going to run the Continia Document Output service must meet the following requirements:

- .NET Framework 4.7 or higher

If you want the service to run as a Windows service (in the background), you must ensure that the user that will run the service has the **Log on as a service** permission. Refer to the section Assigning a user account the "Logon as a service" permission for more information on this.

Installation

Before you can start using Continia Document Output Service, it must be installed. The installation process is outlined in the following steps.

1. Sign into Business Central where Document Output is installed.
2. Search for **Local Print Service Status and Setup** in the search field.

Tell me what you want to do

local print

Go to Pages and Tasks

> Local Print Service Status and Setup   Administration
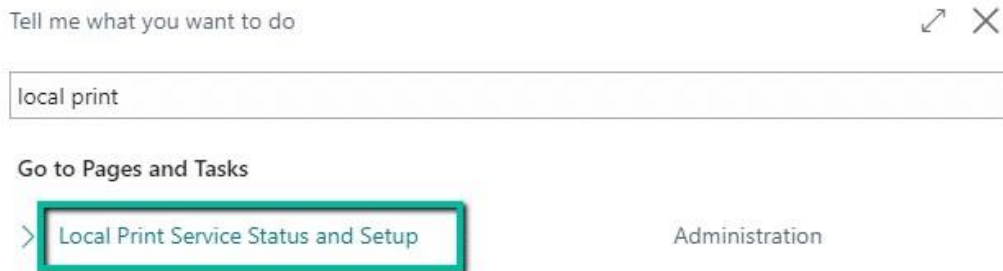
3. Select **Local Print Service Status and Setup**
4. Select the 3 dots

Local Print Service Status and Setup

Local Print Service ∨

Information

Status · · · · · · · · · · · · · · · Could not connect   This machine name · · · · ·

No. printers · · · · · · · · · ·   0

Install Local Print Service

1. Download Local Install Service install package (click the 3 dots)

2. Start the downloaded setup file.

3. Setup the Print Service with the Continia Print Service Manager (Continia.PrintService.Manager.exe)

The Manager is by default installed in C:\Program Files\Continia\Continia Print Service\

4. Make sure Local Print Service in Document Output Setup is enabled.
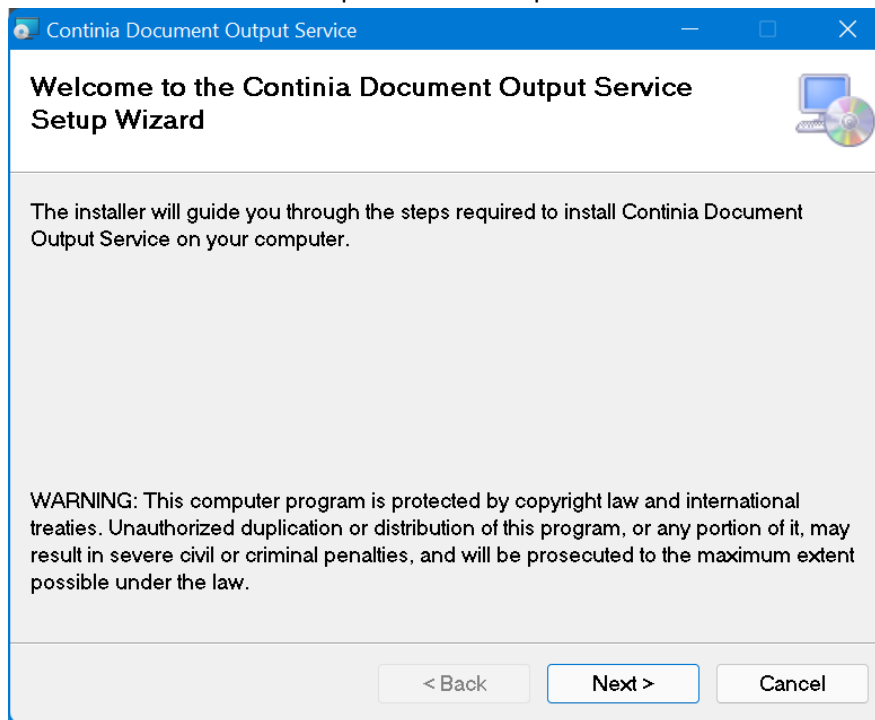
5. Open the downloaded setup file
6. Open the setup.exe file
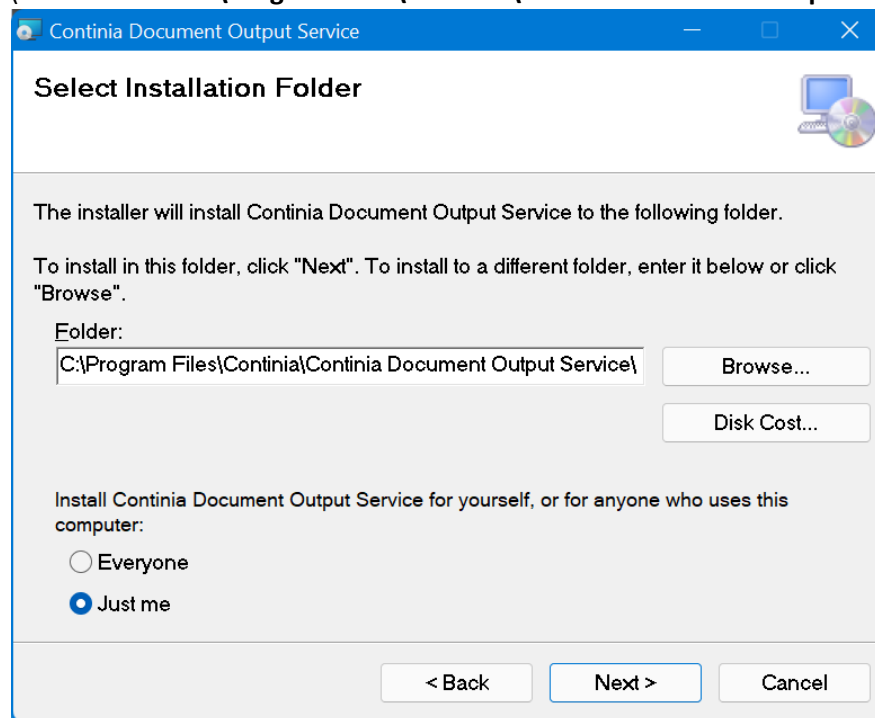7. Select **More info**

8. Select **Run anyway**

9. The Continia Document Output Service Setup wizard will now start
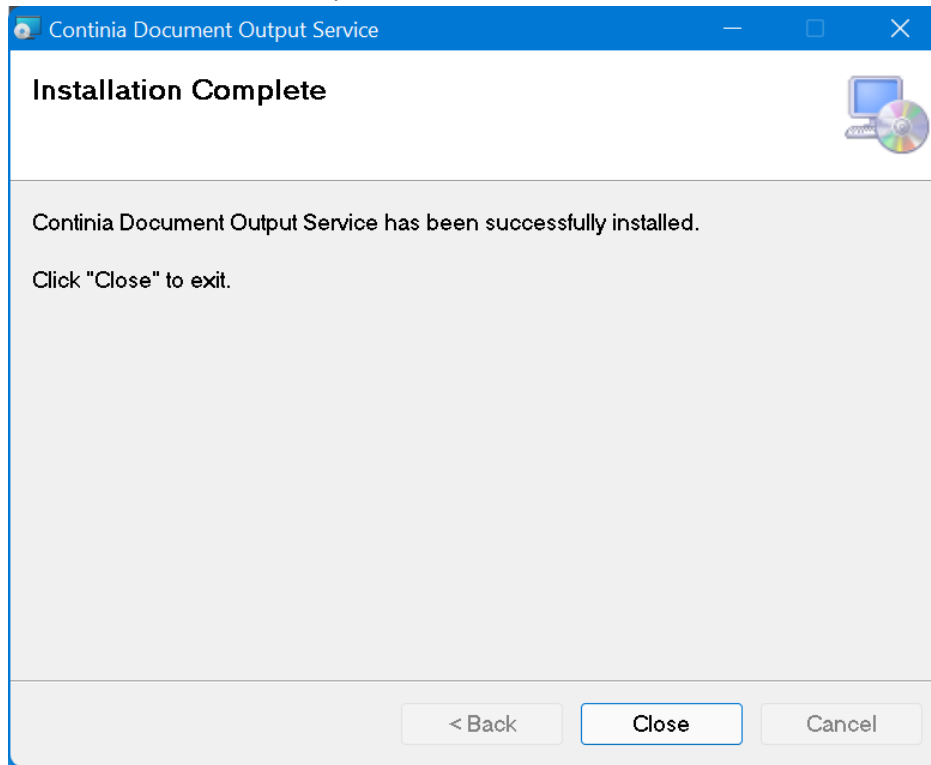

10. Select **Next**

11. Select the folder in which you want to install the service– select **Next**

   (Default folder **C:\Program Files\Continia\Continia Document Output Service**)

12. Select **Next** to start the installation

13. Select **YES** to allow the app to make the installation
14. The installation is now complete


15. Select **Close** to exit

Contents of the package

When the service has been successfully installed, the folder contains the below applications and files. The default folder is "C:\Program Files\Continia\Continia Document Output Service".

Name	Date modified	Type	Size
config.json	3/10/2022 12:34 PM	JSON File	1 KB
icon.ico	3/10/2022 12:34 PM	Icon	11 KB
Manager.exe	3/10/2022 12:28 PM	Application	156,045 KB
Service.exe	3/10/2022 12:32 PM	Application	158,629 KB
ServiceGUI.exe	3/10/2022 12:34 PM	Application	214,606 KB

Manager.exe

This is used to configure the Continia Document Output Service and to install it as a Windows service.
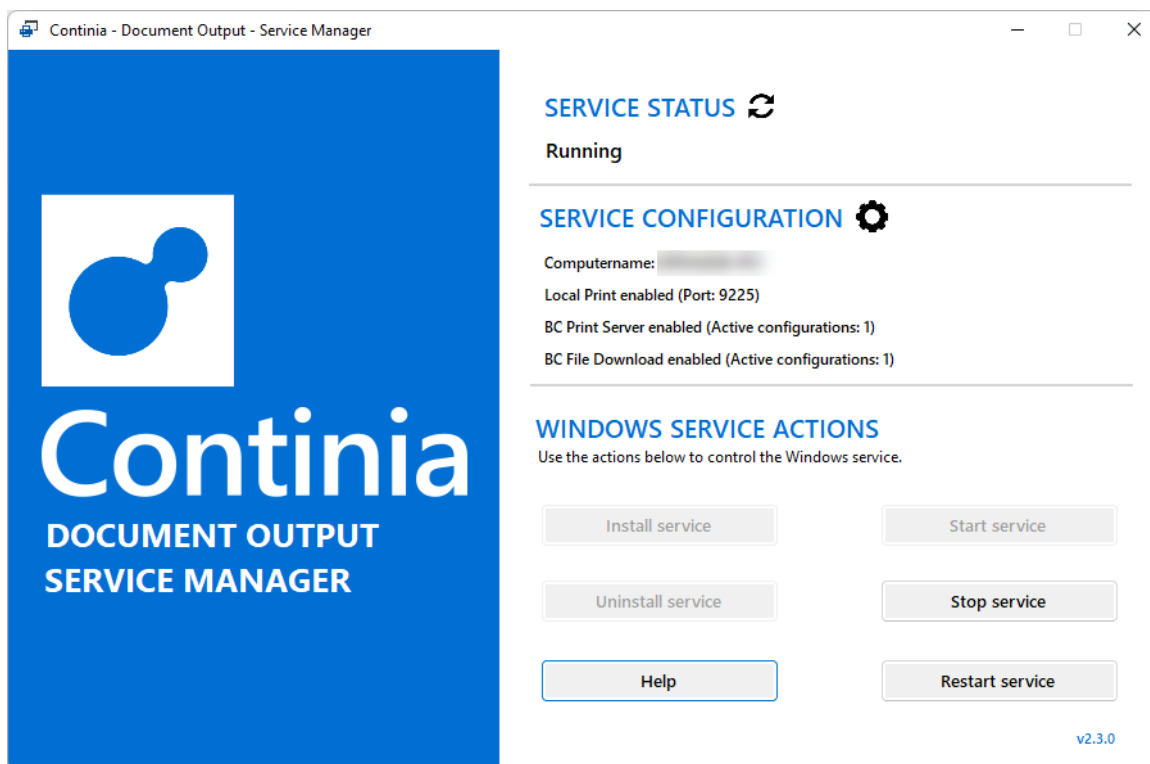
When clicking on the gear icon (⚙), the settings page is displayed. Here, you can configure your preferred features and connect them to your Business Central solution.

The **Windows Service Actions** section contains actions you can use to install the Continia Document Output Service as a Windows service. More information on this later.

ServiceGUI.exe

The ServiceGUI program can be used if you don't want to run the Continia Document Output Service as a Windows service or can't assign the necessary "Logon as a service" permissions to a user. This program can be configured to start automatically with Windows as well. **Don't run this program together with the Windows service as it might cause unexpected behavior.**
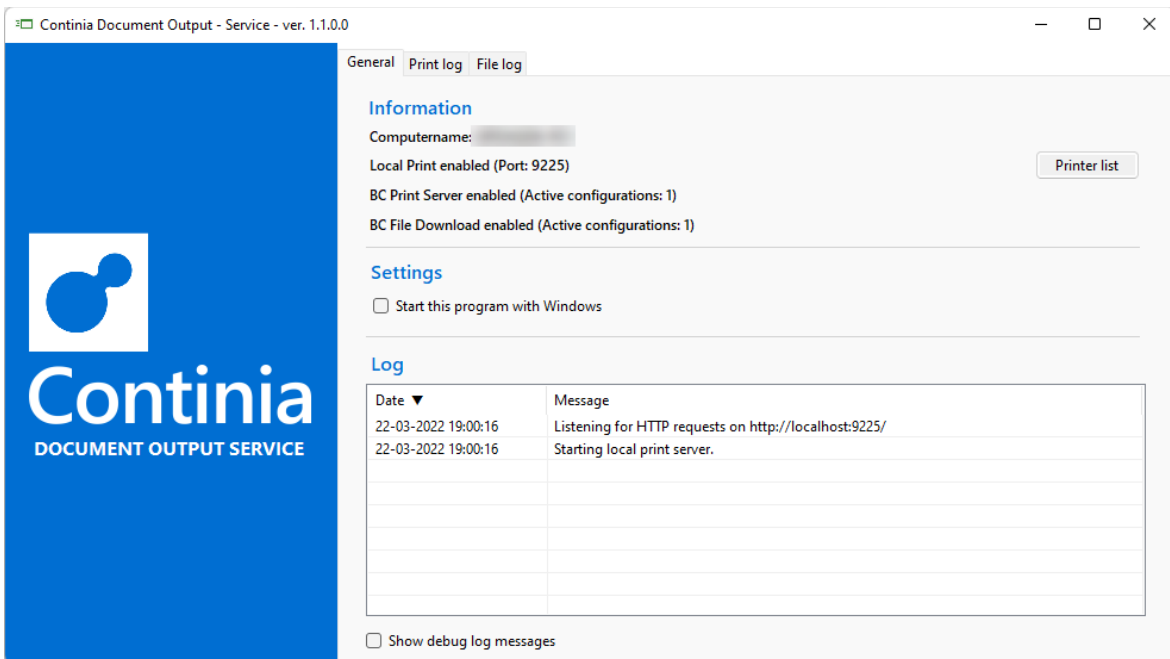
Please note that this program starts as a hidden program in your taskbar with the following icon:

Service.exe [HIDDEN]

Executable for the Windows service. **Should not be run directly!**

config.json

Contains the configuration made with the Manager. **Don't edit this unless you know what you are doing!**

Configure the service

In this section we'll take you through each step of how to configure Continia Document Output Service.

1. Open the **Continia Document Output Service** folder:
   "C:\Program Files\Continia\Continia Document Output Service"

2. Open the **Manager** application.

3. Click **Yes** to allow the app to make changes.

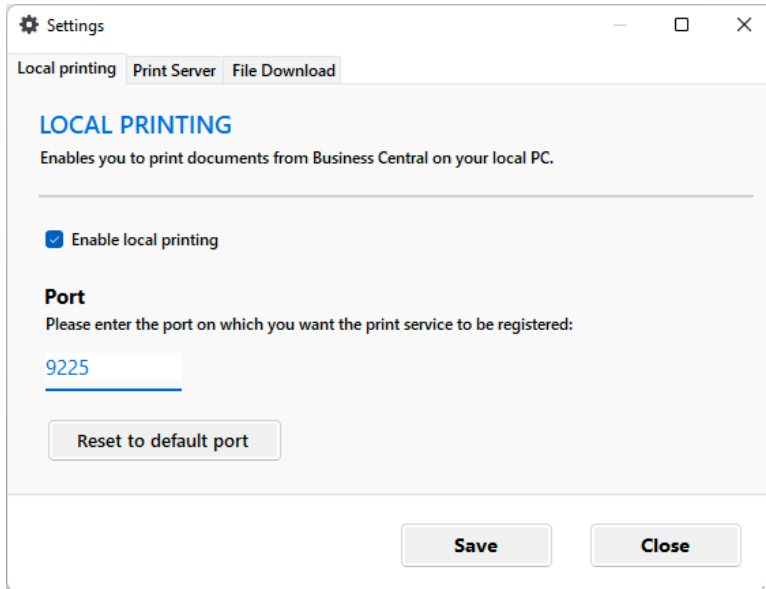4. Wait for the **Manager** application to open.
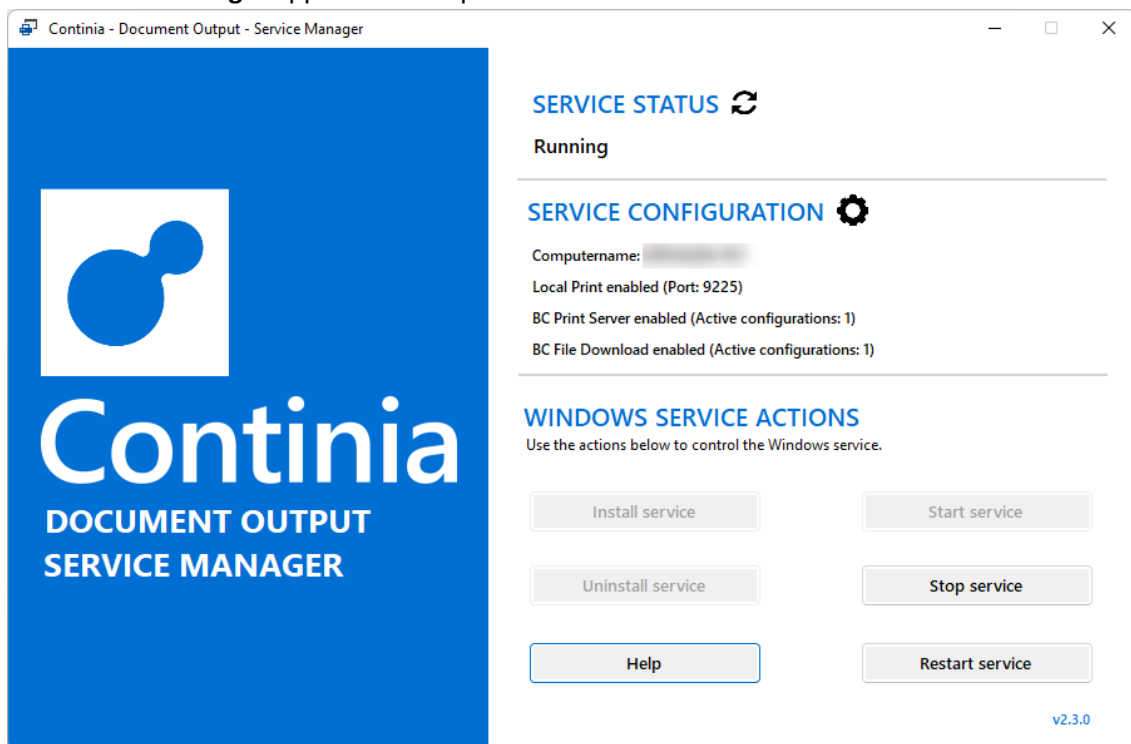
5. Click ⚙ to enter setup.

Local printing

This section describes how to configure local printing. Click here to read the feature description.

1. Click on the **Local printing** tab.

2. Make sure **Enable local printing** is ticked.

3. Specify the port. The port must be the same as the one specified in the Document Output Setup in Business Central. The default port is 9225 (just keep it unless it's being used by another service).
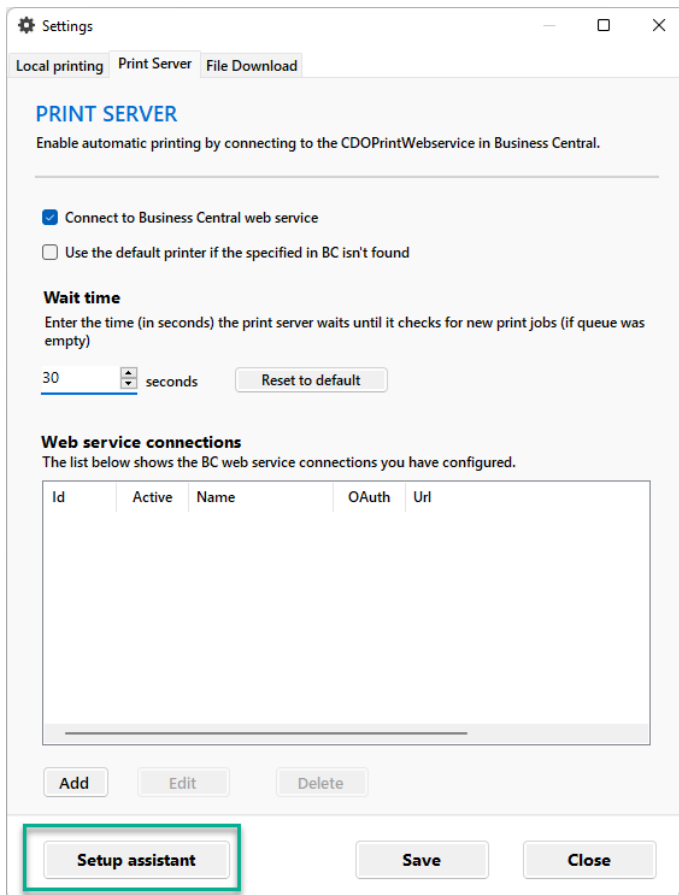
If you don't need the Print Server or File Download functionality, you can go to the section Run the Service (page 24) for instructions on how to run the service. Otherwise continue to the next section.

Print Server & File Download

The print server and file download features connect to Business Central using web services. For easy setup you can use the setup assistant. You can also configure the Print Server and File Download individually.

Setup Assistant

The setup assistant can be used to configure Print Server and File Download for multiple companies at the same time.
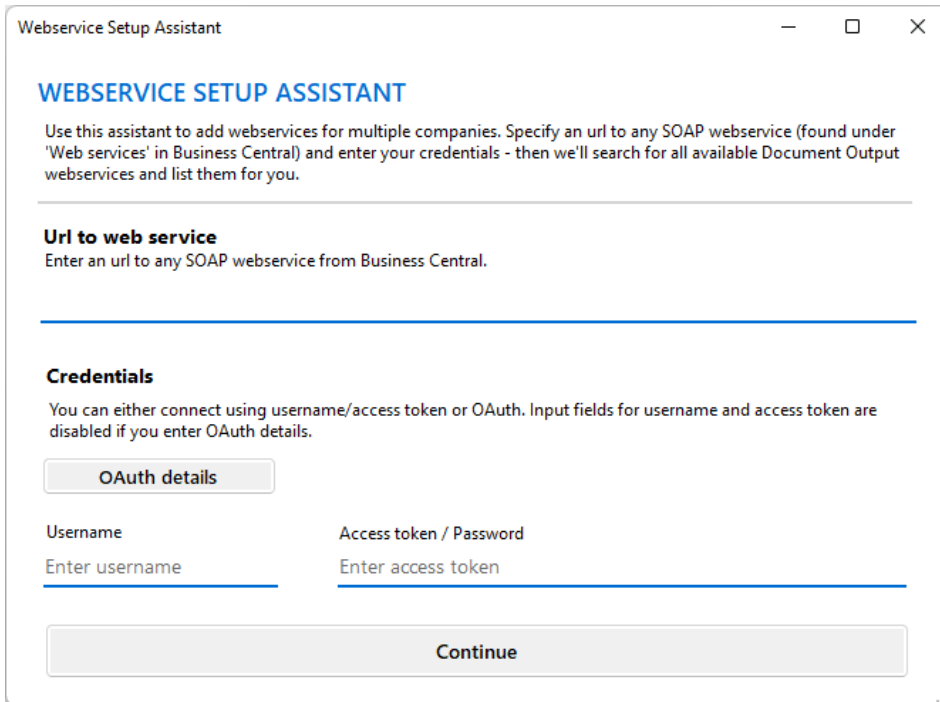

1. Click on **Print Server** or **File Download** in the top menu.
    To enable **Print Server,** do the following:
    a. Tick **Connect to Business Central web service**.
    b. If you want to use the default printer if the printer specified in Business Central is not found, then tick **Use the default printer if the specified in BC isn't found**.

    To enable **File Download,** do the following:
    a. Tick **Connect to Business Central web service**.
    b. If you want to use a default folder if the path specified in Business Central is not found, then tick **Use the default folder if the path specified in BC isn't found**.
    c. Specify the default folder if "**Use default folder...**" is ticked.

2. Click on **Setup assistant** at the bottom. The following screen will be displayed.

3. Open your Business Central web client.

4. Search for **Web Services**.

5. Find **CDO Print Web Service** or **CDO File Download Web Service** in the list and copy the **SOAP URL**.


6. Go back to **Manager**.

7. Paste the URL into the **Url to web service** input field.

8. Now it is time to set up authentication. You can either authenticate using OAuth or a Business Central user and a generated web service access key for that user. Please note that in Business Central version 20 and above Microsoft requires OAuth.

   a. How to Authenticate with user & web service access key (page 22)

   b. How to Authenticate using OAuth (page 22)

9. When authentication has been configured, click on **Continue**.
   If you are using OAuth and receive an error message, then check that you can successfully generate

an access token from the OAuth details dialog. Also check that your Azure application has been registered in Business Central, that user groups have been assigned to it, and that permissions have been signed in accordance with the guide.

10. Available companies and Document Output web services will now be fetched. When it is done, a list with available companies is displayed.
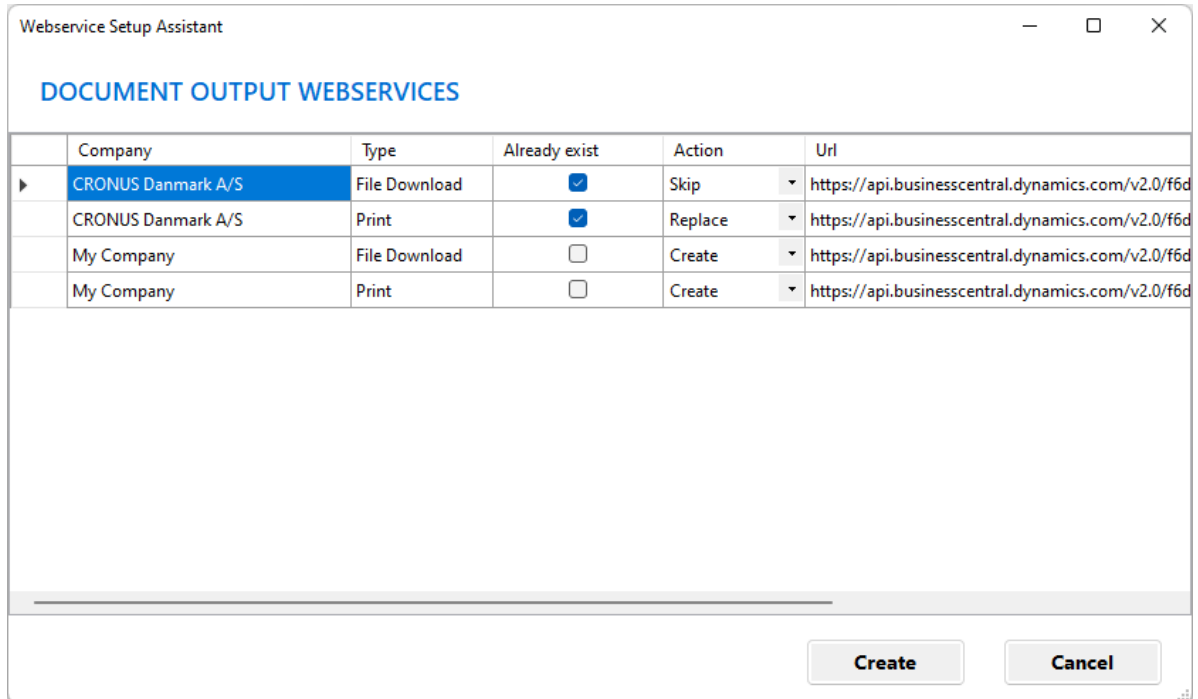
11. Skip the companies you do not want the Continia Document Output Service to connect to. If you want to connect to all the companies, you don't need to do anything in this step.

12. Select **Create**.

13. Select **Save** at the bottom.

14. The settings have successfully been saved. Select **OK**.
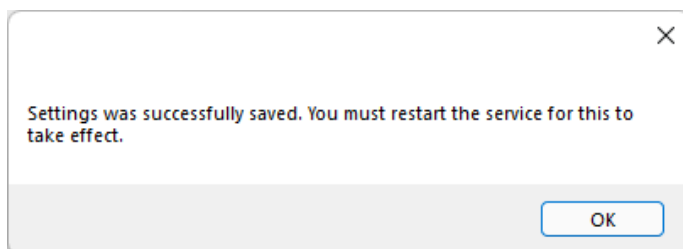
For instructions on how to run the service, see the section <u>Run the Service</u> (page 24).

Setup Print Server

You can also add connections to Print Server web services in Business Central without using the Setup assistant. This section will guide you through the steps.
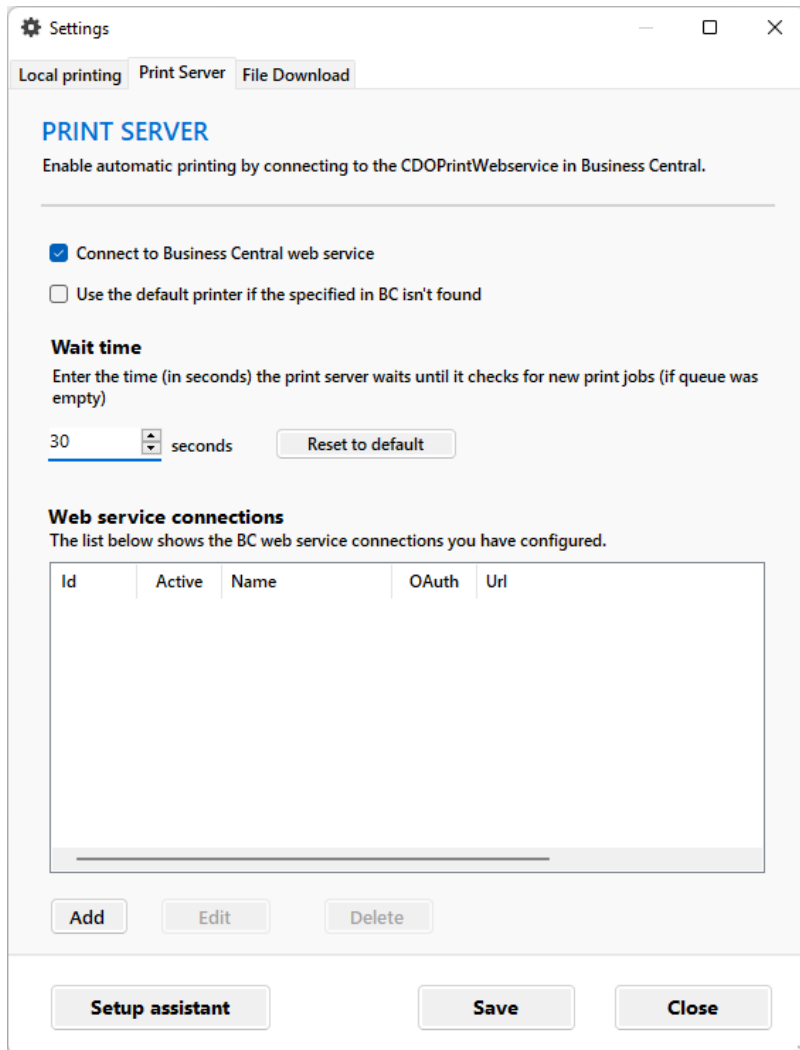
1. Tick **Connect to Business Central web service**.

2. If you want to use the default printer if the printer specified in Business Central is not found, then tick **Use the default printer if the specified in BC isn't found**.

3. Below the list of web service connections, select **Add**.

4. Give the connection a name, for example the name of the company. This is only for internal use.

5. Open your Business Central web client.

6. Search for **Web Services**.

7. Find **CDO Print Web Service** in the list and copy the **SOAP URL**.

Web Services:	All ∨		🔍 Search	➕ New	🗑 Delete	📝 Edit List	🔄 Reload	📊 Open in Excel	More options

| Object Type ↑		Object ID	Object Name		Service Name ↑
Codeunit	⋮	6175329	CDO Print Web Service		CDOPrintWebService
Codeunit		1801	Company Setup Service		CompanySetupService

8. Go back to **Manager**.

9. Paste the URL into the **Url to web service** input field.

10. Now it is time to set up authentication. You can either authenticate using OAuth or a Business Central user and a generated web service access key for that user. Note that Business Central version 20 and above Microsoft require OAuth.

   a   How to [Authenticate with user & web service access key](#) (page 22)

   b   How to [Authenticate using OAuth](#) (page 22)

11. When authentication has been configured, select on **Test connection**.
   *If you are using OAuth and receive an error message, then check that you can successfully generate an access token from the OAuth details dialog. Also check that your Azure application has been registered in Business Central, that user groups have been assigned to it, and that permissions have been signed in accordance with the guide.*

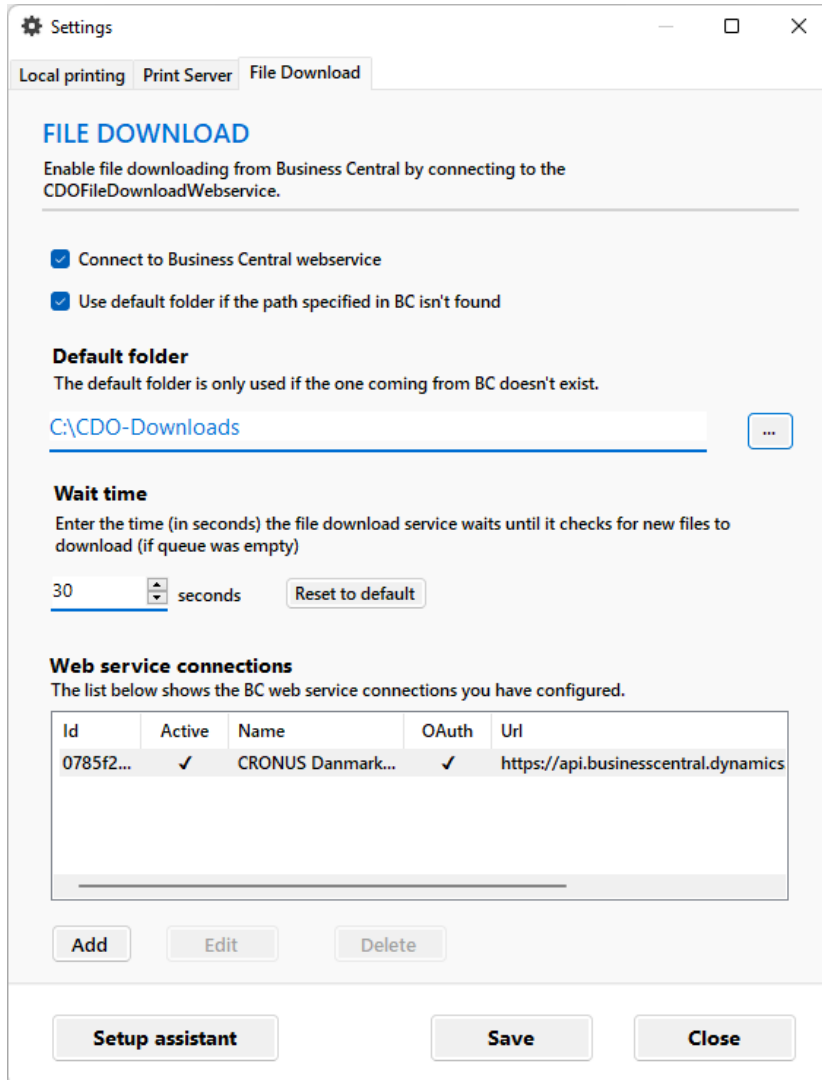12. You are now successfully connected to the web service, Select **OK**.
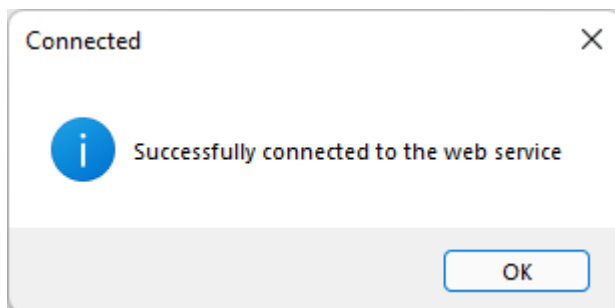
13. Select **Add.**

14. Finally, select **Save** at the bottom. Your settings have now been updated. Select **OK** to close the dialog.
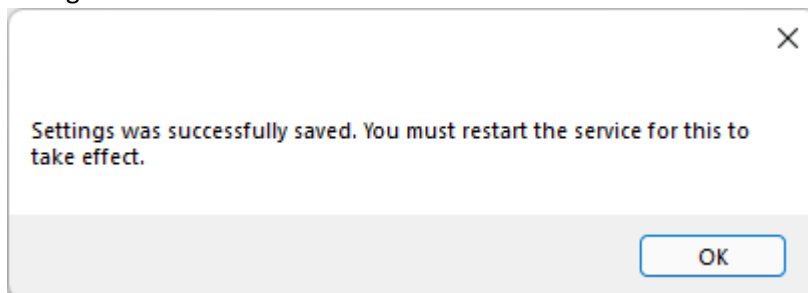
Setup File Download

You can also add connections to File Download web services in Business Central without using the Setup assistant. This section will guide you through the steps.

1. Tick **Connect to Business Central web service**.

2. If you want to use a default folder if the path specified in Business Central is not found, then tick **Use the default folder if the path specified in BC isn't found**.

3. Specify the default folder if "**Use default folder...**" is ticked.

4. Below the list of web service connections, select **Add**.

5. Give the connection a name, for example the name of the company. This is only for internal use.

6. Open your Business Central web client.

7. Search for **Web Services**.

8. Find **CDO File Download Web Service** in the list and copy the **SOAP URL**.

Web Services | Work Date: 12/04/2021

Object Type ↑		Object ID	Object Name	Service Name ↑	All Ten...	Pub...	OData V4 L
→ Codeunit	⋮	6175330	CDO File Download Web Service	CDOFileDownloadWebService	☐	☑	https://
Codeunit		6175329	CDO Print Web Service	CDOPrintWebService	☐	☑	https://

9. Go back to **Manager**.

10. Paste the URL into the **Url to web service** input field.

11. Now it is time to setup authentication. You can either authenticate using OAuth or a Business Central user and a generated web service access key for that user. Note that in Business Central version 20 and above Microsoft requires OAuth.

   a. How to [Authenticate with user & web service access key](page 22) (page 22)

   b. How to [Authenticate using OAuth](page 22) (page 22)

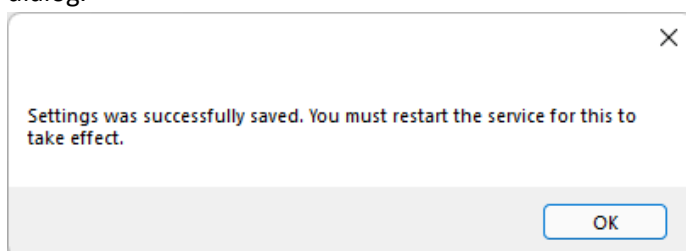12. When authentication has been configured, select **Test connection**.
   If you are using OAuth and receive an error message, then check that you can successfully generate an access token from the OAuth details dialog. Also check that your Azure application has been registered in Business Central, that user groups have been assigned to it, and that permissions have been signed in accordance with the guide.

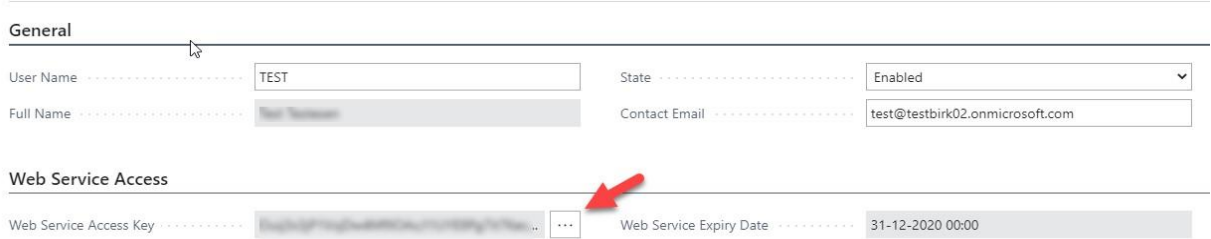13. You are now successfully connected to the web service. Select **OK**.

Connected   ✕

ⓘ   Successfully connected to the web service

                                        OK
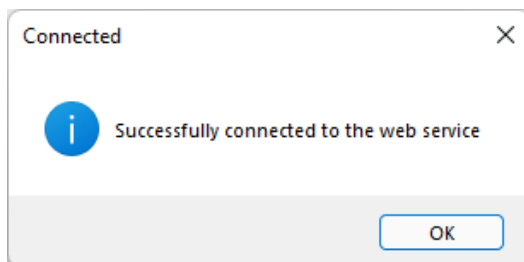
14. Select **Add**.

15. Finally, select **Save** at the bottom. Your settings have now been updated. Select **OK** to close the dialog.

                                        ✕

Settings was successfully saved. You must restart the service for this to take effect.

                                        OK

Authenticate with user & web service access key

This section describes how get a web service access key for Continia Document Output Service to authenticate in Business Central.

1. Open the Business Central web client and search for **Users**.

2. Select the user that should be used for authentication.

3. Select **[…]** on **Web Service Access key**.

General

User Name	TEST	State	Enabled
Full Name		Contact Email	test@testbirk02.onmicrosoft.com

Web Service Access

Web Service Access Key	…	Web Service Expiry Date	31-12-2020 00:00

4. Accept the questions. Copy the newly generated **Web Service Access key**.

5. Go back to the **Manager** and paste the username into the **Username** field and the newly generated access key into **Access token / password** field.

6. You are done. Go back to the step from which you were directed to this section.

Authenticate with OAuth

This section describes how to set up OAuth for Continia Document Output Service to authenticate in Business Central.
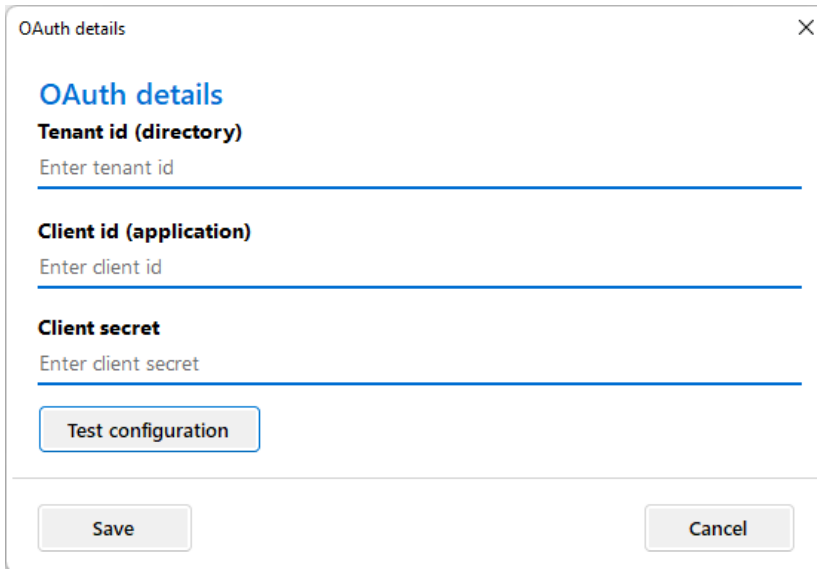
First, you must follow the **Setting up OAuth for Document Output Service** guide located online at Continia Docs. The guide will take you through multiple steps and help you do the following:

*   Add and configure an Azure App Registration to get the following values:
    Tenant ID, **Client ID**, and a **Client secret**.
*   Add the App to the **Azure Active Directory Application** list in Business Central and assign necessary permissions for the application.

When done with the above, you are ready to use OAuth for authentication in Continia Document Output Service. To use OAuth, do the following:

1. In **Web service setup assistant** or **Add/update web service**, under **Credentials**, click on **OAuth details**.

2. In the dialog, enter your **Tenant ID**, **Client ID**, and **Client secret**.

3. Select **Test configuration** to check if an access token can be generated. *If you don't receive a success message, then check to see if the values you entered are correct. Otherwise check if your app in Azure is configured in accordance with the guide (permissions have been granted etc.).*

4. You successfully generated an access token.

5. Select **Save**.

6. You are done. Go back to the step from which you were directed to this section.

Run the service

The service can be run in two ways – either as a Windows service (running in the background) or by using the ServiceGUI program, described in Contents of the package, which don't require the user to have the **Logon as a service** permission. The ServiceGUI program can be configured to automatically start with Windows as well.

Don't run the ServiceGUI application together with the Windows service as it might cause unexpected behavior (two applications trying to register on the same port, pulling jobs from the queue, etc.).

Windows service

As mentioned in the Requirements section, you must ensure that the user that will run the service has the **Log on as a service** permission. You can follow the guide below to assign that user permission. Otherwise, you must contact your local network administrator.

Assigning a user account "Logon as a service" permission

If you need to assign a user account, the Logon as a service permission do the following:

1. Sign in with administrator privileges to the computer from which you want to assign the **Log on as Service** permission to accounts.

2. Go to **Administrative Tools**, select **Local Security Policy**.

3. Expand **Local Policies**, select **User Rights Assignment**. In the right pane, right-click **Log on as a service** and select **Properties**.

4. Select **Add User or Group** option to add a new user.

5. In the Select Users or Groups dialogue, find the user you wish to add and select OK.

6. Click OK in the Log on as a service Properties to save the changes.

For more documentation check:
https://docs.microsoft.com/en-us/system-center/scsm/enable-service-log-on-sm?view=sc-sm-2019
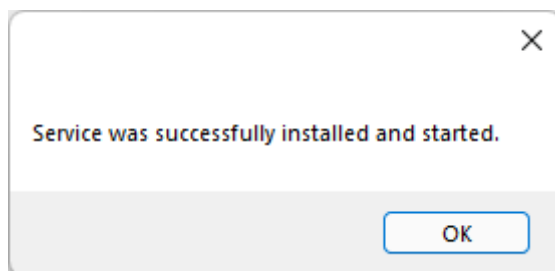
Installation

To install the Continia Document Output Service as a Windows service, you must use the Manager application. The Manager application uses the Service Controller (SC.exe) to install and control the Windows service. It also ensures that settings and credentials you enter in the configuration section is available for the user running the service. To install the service, you must follow these steps:

1. Open the **Manager** application.

2.   In the **Windows Service Actions** section, select **Install service**

3.   Enter the Windows username (domain\username) and password for the user running the application. If the user isn't in a domain, then just enter the username.
      Note that it's a good idea to create a new user (or use an existing one) where the password never changes as it might cause logon issues when the password is changed, resulting in a non-running service.
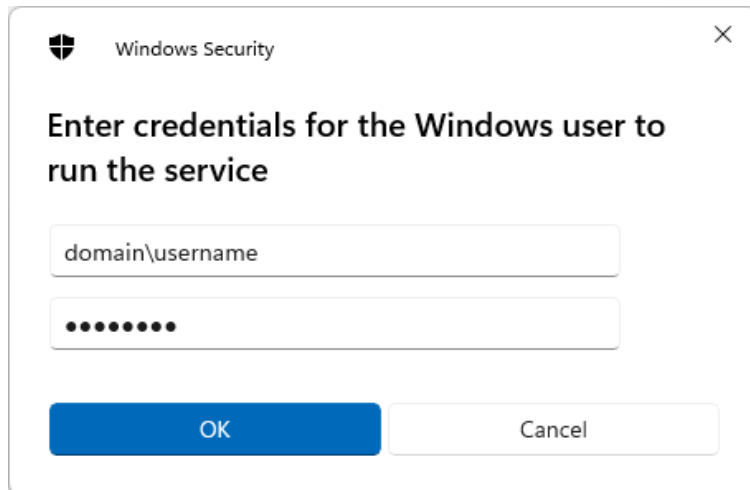
4.   The service was successfully installed and started – select **OK**.

Control the Windows service

When the Continia Document Output Service is installed as a Windows service, it can be controlled from the Manager application as well. From the Manager, you can **Start**, **Stop**, **Restart** and **Uninstall** (service must be stopped first) the Windows service. The actions are found in the **Windows Service Actions** section.

Example on how to start the Windows service if stopped:

1.   Open the **Manager** application.

2.   Select **Start service**

3. The service is started. Select **OK.**
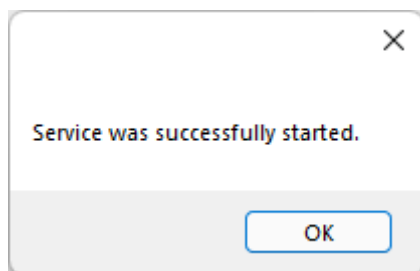
ServiceGUI application

If you don't want to run Continia Document Output Service as a background Windows service, you can also use the ServiceGUI application instead, which doesn't require the user to have the Logon as a service permission. In the settings section on the General tab, you can specify if you want the ServiceGUI application to automatically start with Windows.

Note that you are still required to use the Manager application to configure the service.
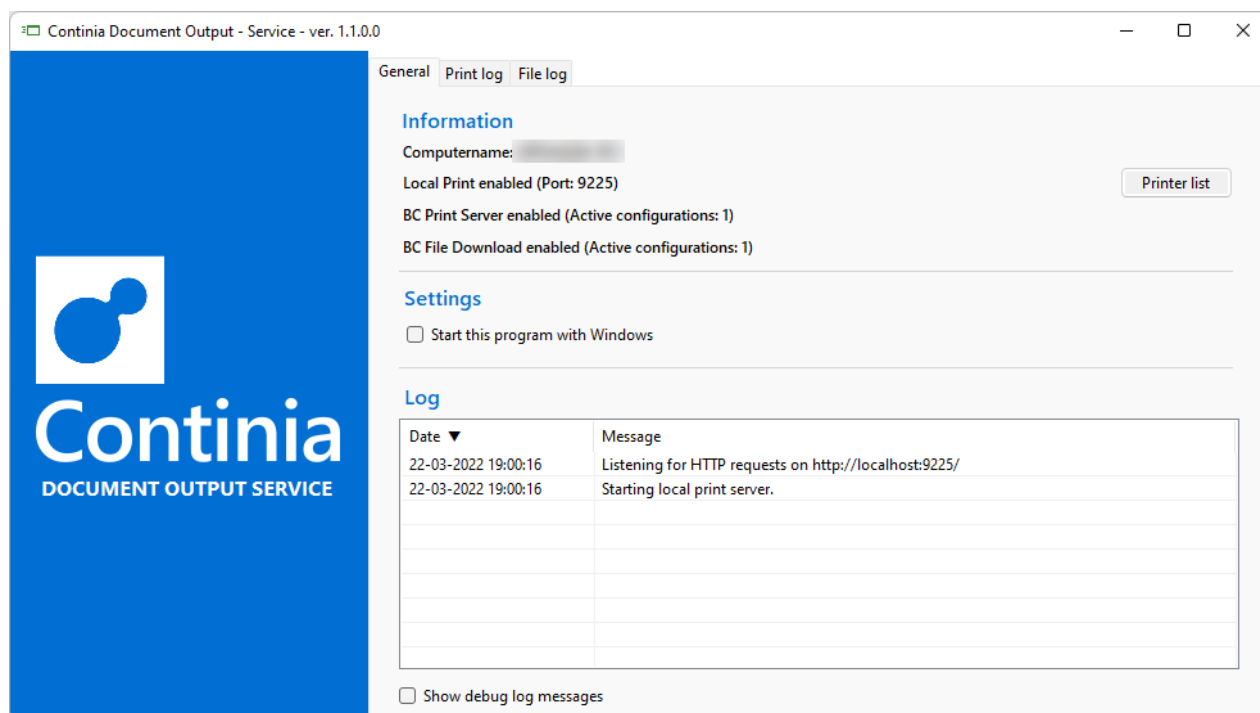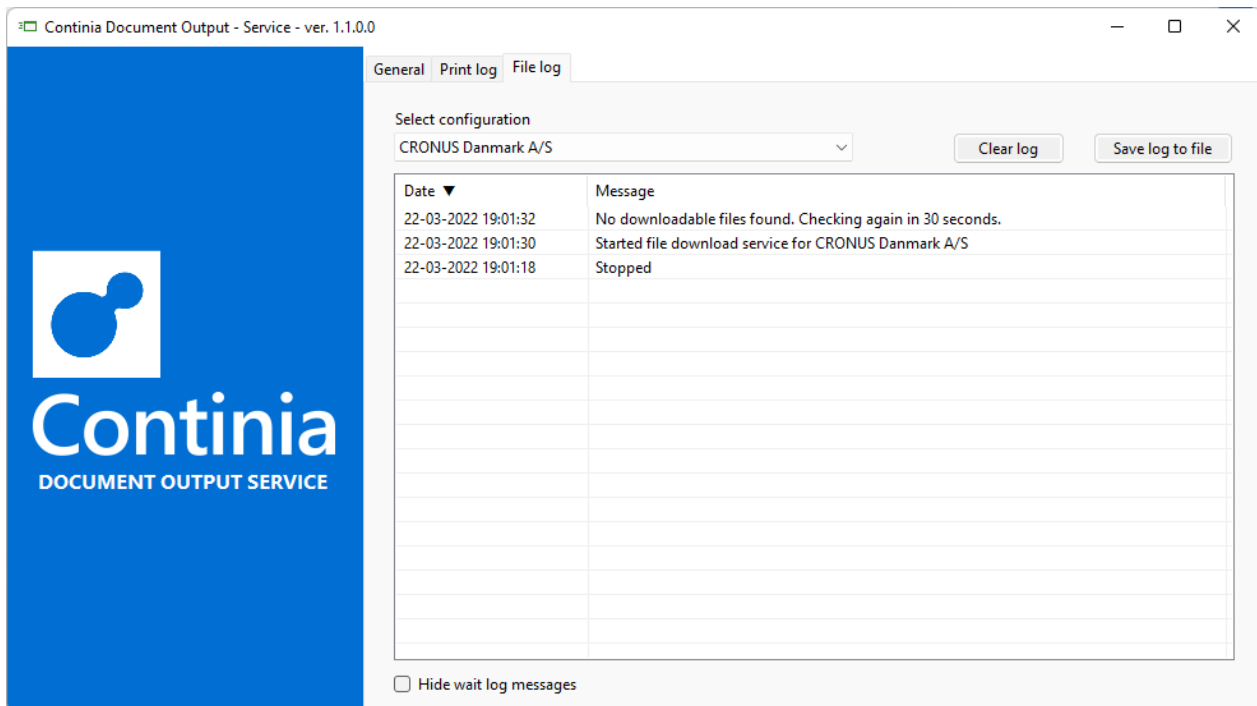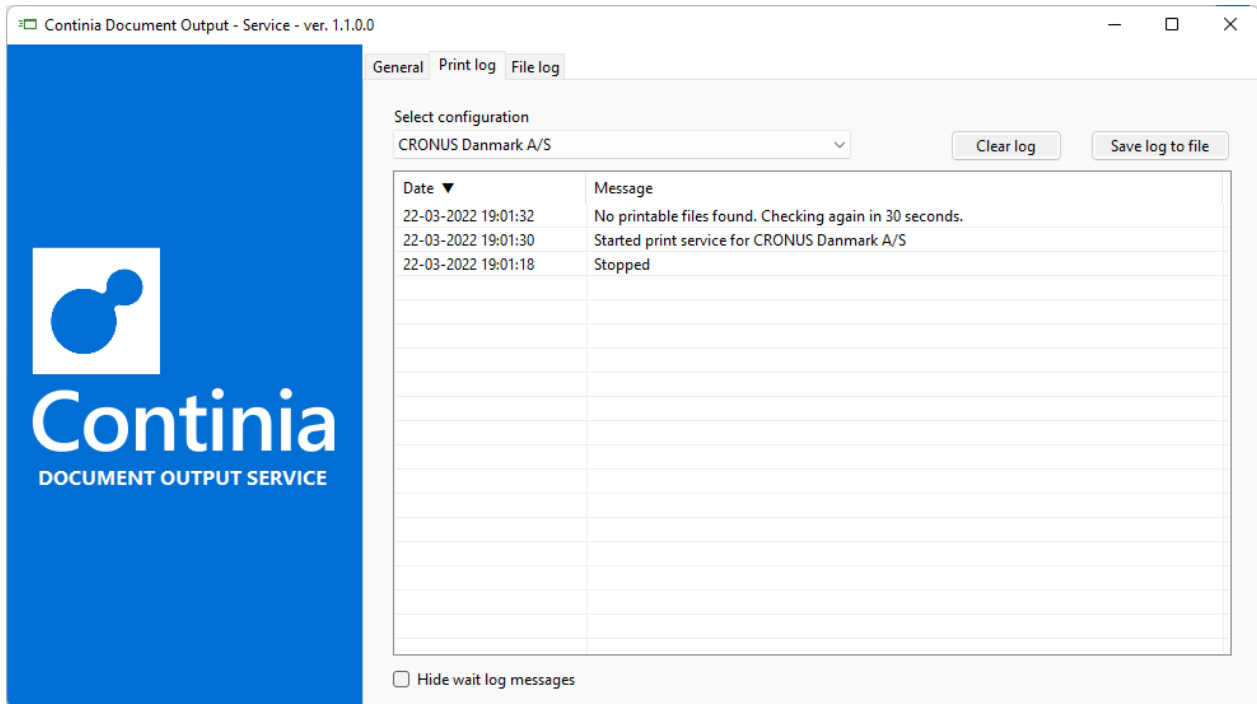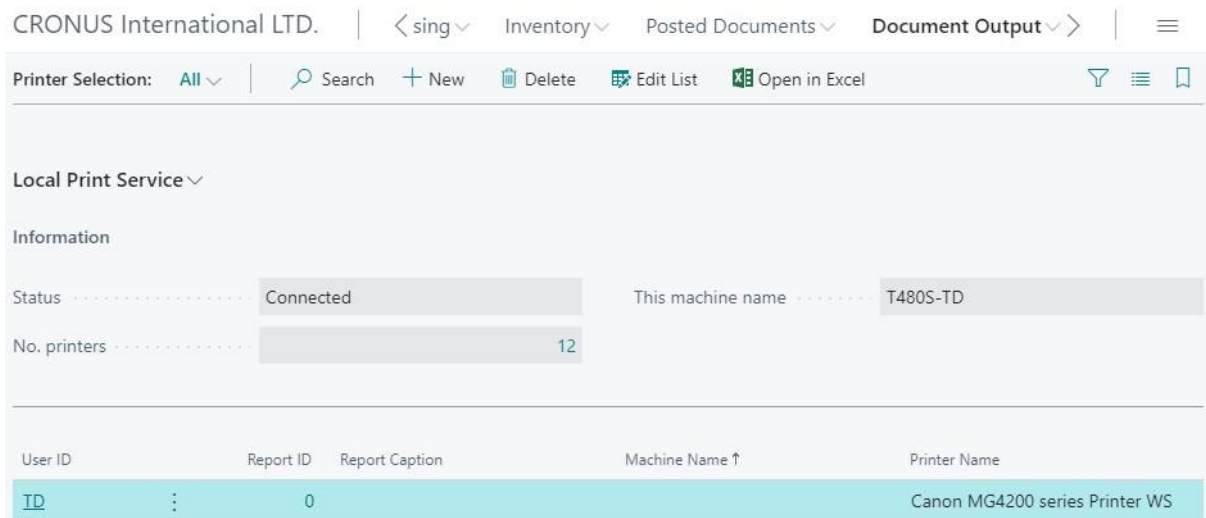
Errors and exceptions

If an error occurs, you can find the error messages in Windows Event Viewer by using the filter "**Continia Document Output Service**" as the source. Note that the Manager application must have been started at least one time on the PC for errors to be logged in the Windows event log, as it handles the required application registration in Windows. If you use the ServiceGUI, application errors are also displayed in the log table on each tab.

How to set up printer selection in Business Central

Before you can start printing from Document Output, you must configure to which printer you want a document to be printed. You can specify different printers for different users and reports depending on the PCs that are used. The following steps show you the setup process.

Ensure that **Local printing** is enabled, and that Continia Document Output Service is running (either as a Windows service or using the ServiceGUI application). Otherwise, you won't be able to select any printers.

1. Open your Business Central web client.

2. Search for **Printer Selection** in the search field.

3. Create a new entry and specify **User ID** (optional), **Report ID** (0 specifies all reports), **Machine Name** (optional) and **Printer Name**.

How to print from Business Central using the service

In the steps below, you're guided to multiple ways to print from Business Central – either directly or using the print queue. When you print multiple documents using Document Output, the documents can be sent to the **Document Queue** and then to the **Print Queue**. The Continia Document Output Service connects to the **Print Queue** using Document Outputs web services and prints the documents depending on your printer selection configuration.

1. Open your Business Central web client.

2. Select an Unhandled Document Task.

3. Select the **Send all to Queue** to send all the Unhandled Documents that are to be printed or select **Print PDF** to print a single document.

5. If **Print PDF** is selected, a Printer Dialog box opens.
Note that this feature requires the **Local Print Service** *to be enabled in Document Output Setup in Business Central, and the* **Local printing** *feature to be enabled in the service.*

6. Select **Print** to finish printing the document.
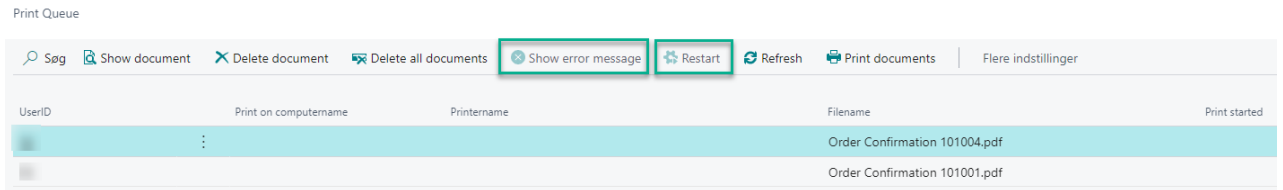7. If the **Send all to Queue** is used, go to the Document Queue from the Role Center.
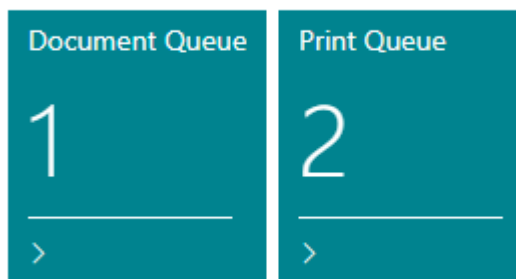
8. The Queue will now send all entries with an email.

9. The entries for print are sent to the **Print Queue** and afterwards printed by the Continia Document Output Service.
Note that the Print Server feature must be enabled and configured in the service. Otherwise, documents in the print queue won't be printed.

10. If an error occurred during printing, the error message can be viewed by clicking **Show error message** from the **Print Queue**. If a print job has failed, it can also be restarted by clicking **Restart**.

Print Queue

🔍 Søg	🔲 Show document	✕ Delete document	🔲 Delete all documents	⊗ Show error message	⟳ Restart	⟳ Refresh	🖨 Print documents	Flere indstillinger

UserID	Print on computername	Printername	Filename	Print started
▮	⋮		Order Confirmation 101004.pdf	
▮			Order Confirmation 101001.pdf	

For on-premise solutions

If you are using an on-premise solution and want to use the Document Output print queue and the Continia Document Output Service, you must enable **Use BC Print Queue** in the Document Output Setup in Business Central. This could be the case if you, for example, are running the service tier in the Azure or a similar service with no access to printers.