



WHITE PAPER

TRIMIT EXPLORER 23.1

This document contains information about the Explorer functionality in TRIMIT 23.1 for Microsoft Dynamics 365 Business Central 2023, Wave 1 (W1).

Version: 23.1
Date: 20-11-2023

CONTENTS

Introduction	1
Components	2
Connection Setup	3
Description of the Fields:	3
File Shares for Azure Storage	6
Storage Type = Azure Files	6
FastTab Azure Files Share	7
Storage Type = Azure Blobs	7
FastTab Azure Blobs Container	8
File Shares for Local Files	9
File Explorer	11
Update List	12
Upload File	12
Download File	12
Delete File	12
Open Folder	12
Parent Folder	12
Home Folder	13
Create Folder	13
Delete Folder	13
Use Network Drive	14

INTRODUCTION

If you are running TRIMIT in the Cloud, you could also have created your own account for **Azure Storage** to store your Documents and Files in the Cloud.

See more details in <https://azure.microsoft.com/en-us/product-categories/storage/> and <https://docs.microsoft.com/en-us/azure/storage/files/storage-files-introduction>.

To make uploading/downloading Files to/from the **Azure Storage** easier, we have created the **TRIMIT Explorer** functionality by using and extending the **Connection Setup** that was already used for the Replication of Data needed for TRIMIT Intercompany or the TRIMIT Portals.

But you might also have Documents and Files stored on a local Machine (Server/PC).

To make uploading/downloading Files to/from your local Machine easier, you can also use the **TRIMIT Explorer** functionality, but in that case, you also need to:

- Install **ForNAV** at least Release **7.2.0.1**.
- Install **TRIMIT AddOn ForNAV** at least Release **23.1.11614.0**.
- Install **ForNAV Direct Printing** on the Machine (Server/PC) where the Local Files will be stored and has been setup accordingly.

The functionality described is the functionality as of **TRIMIT 23.1 for Business Central W1 BC22.X**.

The pictures in this White Paper are based on the demo database for **TRIMIT 23.1**, which is based on Microsoft Dynamics 365 Business Central 2023 Release Wave 1, in the demo company **CRONUS TRIMIT W1 Ltd.** (based on CRONUS International Ltd. of Microsoft Dynamics 365 Business Central).

COMPONENTS

TRIMIT Explorer contains the following objects:

The tables **6036517 trm Connection Setup**
 6036560 trm File Storage Share
 6036562 trm Temp File Storage Explorer
 6036563 trm File Storage Archive
 6036564 trm File Storage Archive Log

The pages **6036544 trm Connection Setup Card**
 6036545 trm Connection Setup List
 6036560 trm File Storage Share
 6036561 trm File Storage Shares
 6036562 trm File Storage Lookup List
 6036563 trm File Storage Explorer
 6036567 trm File Storage Archives
 6036568 trm File Storage Archive Log

The codeunits **6036560 trm Azure Files Client**
 6036561 trm Azure Files Client Impl.
 6036562 trm Azure Storage Request Mgt.
 6036563 trm Azure Storage Resp. Mgt.
 6036564 trm Azure Blobs Client
 6036565 trm Def. File Storage Client
 6036566 trm Azure Storage Auth
 6036567 trm File Storage Handling
 6036568 trm File Storage Archiving

NOTE

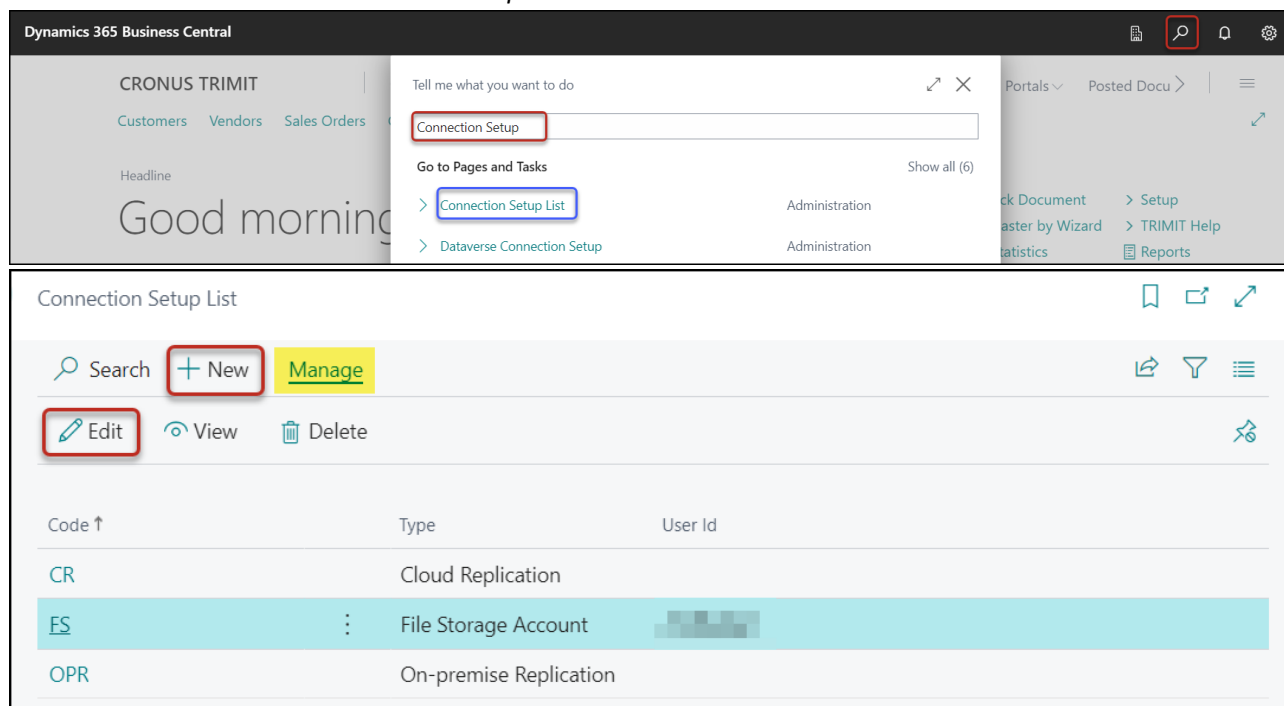
The page **6036562 trm File Storage Lookup List** is not used within **TRIMIT Explorer**, but is used in the **TRIMIT E-Mail Templates**, to choose a directory in which you want to save the attachments of sent E-Mails.

Also, the **File Storage Archive** objects are used in the TRIMIT E-Mail Functionality.

For more info see the **White Paper – TRIMIT E-Mail** as of release 23.1.

CONNECTION SETUP

You can find it via **Search Connection Setup List**.



In case of making use of **Azure Storage**, you need to have at least a **Connection Setup** of **Type File Storage Account**.

DESCRIPTION OF THE FIELDS:

CODE

Unique **Code** for this Connection Setup.

TYPE

You can choose between the following three options:

On-premise Replication	Connection for replicating Data in an on-premises installation
Cloud Replication	Connection for replicating Data in a cloud installation
File Storage Account	Connection for Azure File Storage

USER ID

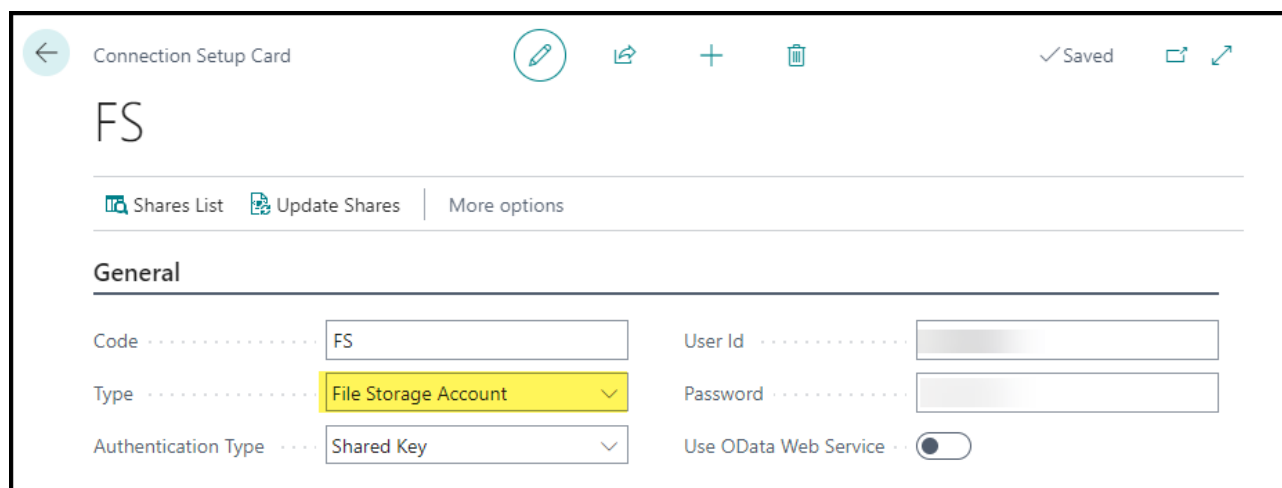
The **User Id** for your Connection.

In case of **Type = On-premise Replication** it is the **User Id** of your on-premises TRIMIT installation.

In case of **Type = Cloud Replication** it is the **Client Id** of your cloud TRIMIT installation.

In case of **Type = File Storage Account** it is the **Account** of your Azure Storage Services.

By clicking **Manage, Edit**, the Card will open in which you can also enter other necessary fields.



Connection Setup Card

FS

Shares List | Update Shares | More options

General

Code FS

Type File Storage Account

Authentication Type Shared Key

User Id

Password

Use OData Web Service

For **Type** *File Storage Account*

AUTHENTICATION TYPE

With this field you can determine how the Authentication takes place based on your **User Id** and **Password**.

For **Type** *File Storage Account* – the only option that you can choose is *Shared Key*, which is also filled as default. Any other option will give you an error message.

For **Type** *On-premise Replication* – the only option that you can choose is *Basic*, which is also filled as default. Any other option will give you an error message.

For **Type** *Cloud Replication* – the default is *OAuth 2.0 Service to Service*.

You can however choose between the following two options:

Basic	Basic Authentication used for Replication to an on-premises environment
OAuth 2.0 Service to Service	OAuth Authentication used for Replication to a cloud environment

PASSWORD

The Password belonging to your **User Id**.

In case of **Type** = *On-premise Replication* it is the **Password** of your on-premises TRIMIT installation.

In case of **Type** = *Cloud Replication* it is the **Client Secret** of your cloud TRIMIT installation.

In case of **Type** = *File Storage Account* it is the **Password** of your Azure Storage Services.

For **Type** *File Storage Account*, click **Update Shares**, to update the Shares of your File Storage Account.

The **Connection Setup Card** will look different for the **Types** *On-premise Replication* or *Cloud Replication*.

USE ODATA WEB SERVICE

This field is not shown by default, but you can add it via **Personalize**.

You can determine – especially for an *External* Replication Subscriber – if you want to **Use OData Web Service**.

NOTE

<https://learn.microsoft.com/en-us/dynamics365/business-central/dev-itpro/webservices/odata-web-services>

The Open Data Protocol (OData) is a web protocol that is designed for querying tabular data and provides you with an alternative to SOAP-based web services. OData builds on web technologies such as HTTP and JavaScript Object Notation (JSON) to provide access to information from different applications, services, and stores. OData uses URIs for resource identification and commits to an HTTP-based, uniform interface for interacting with resources. This commitment to core Web principles allows for OData to enable a new level of data integration and interoperability across a broad range of clients, servers, services, and tools.

You can use OData web services to show Business Central data, and you can update data in a Business Central database using OData web services.

Connection Setup Card

+

✓ Saved

CR

Ping the Connection
Get Version
More options

General

Code

CR

User Id

Type

Cloud Replication

Password

Authentication Type

OAuth 2.0 Service to Service

Use OData Web Service

Cloud Replication

Tenant

*

Timeout

Environment

*

Batch Size

Company Name

*

...

Connection Setup Card

+

✓ Saved

OPR

Ping the Connection
Get Version
More options

General

Code

OPR

User Id

Type

On-premise Replication

Password

Authentication Type

Basic

Use OData Web Service

On-premise Replication

Server Name

*

Service Port

Service Name

*

Timeout

Company Name

*

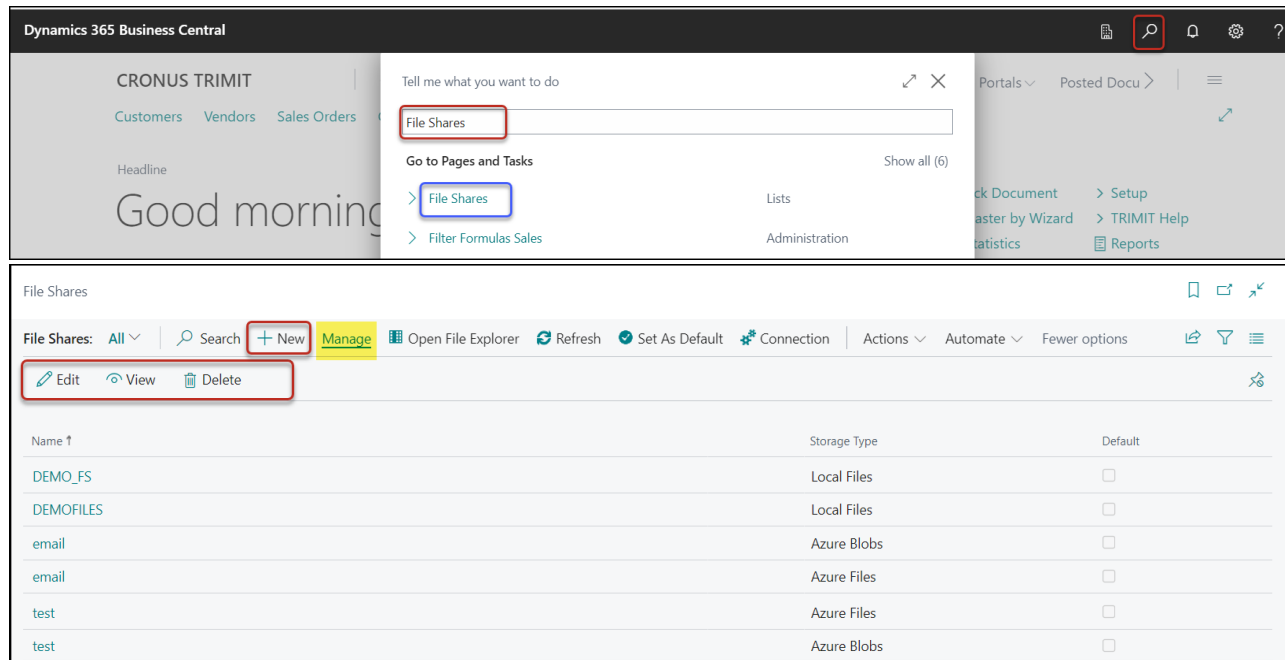
...

Batch Size

For more details regarding **Replication**: see **White Paper – TRIMIT Replication of Data**

FILE SHARES FOR AZURE STORAGE

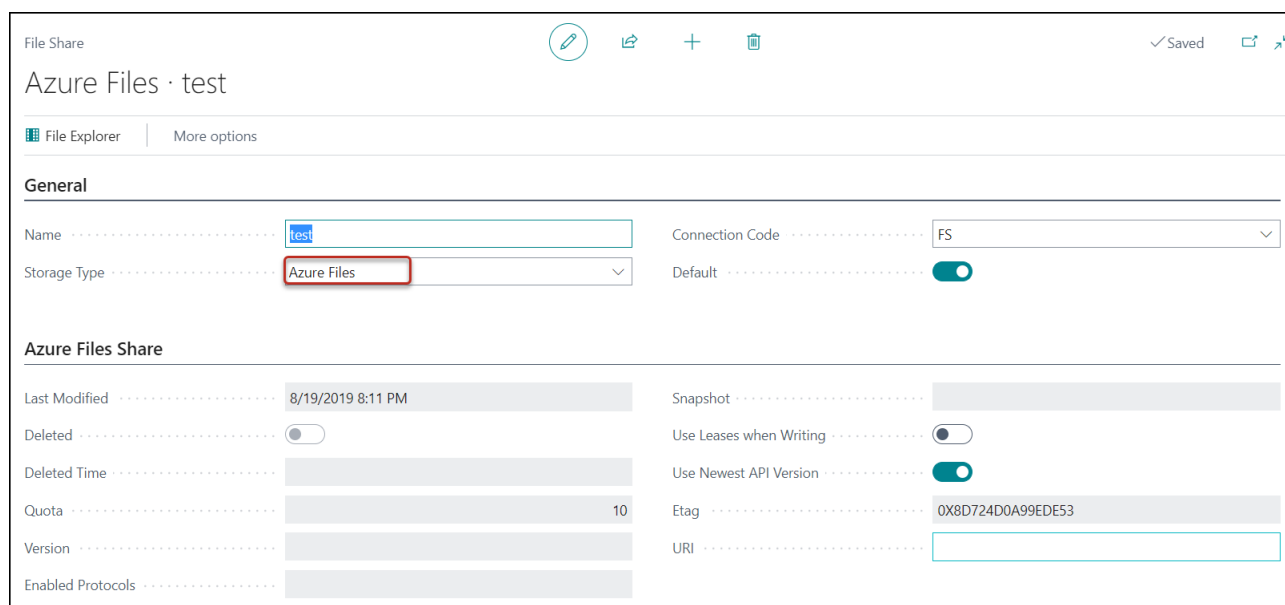
The Azure Storage **File Shares** can be found by clicking **Shares List** in Connection Setup Card of **Type File Storage Account** or via **Search File Shares**.



In **File Shares** you will see the File Shares that have already been created in **Azure Storage** or via **TRIMIT Connect Setup** functionality.

Via **Manage** you can edit, view, or delete a **File Share** and via **+ New** you can create a new **File Share**. Depending on the **Storage Type** the page of the **File Share** will look different.

STORAGE TYPE = AZURE FILES



NAME

Name of the File Share.

STORAGE TYPE

You can choose between the following two options:

Azure Files	Offers fully managed cloud file shares that you can access from anywhere via the industry standard Server Message Block (SMB) protocol. You can mount Azure file shares from cloud or on-premises deployments of Windows, Linux, and macOS.
Azure Blobs	Allows unstructured data to be stored and accessed at a massive scale in block blobs. Also supports Azure Data Lake Storage Gen2 for enterprise big data analytics solutions.

NOTE

When you have an on-premises Installation the **Storage Type** of the **File Share** must be *Azure Files*.
When you have a cloud Installation you can use *Azure Files* and *Azure Blobs*, but the *Azure Blobs* is cheaper.

CONNECTION CODE

The **Connection Code** to which the File Share is connected to.

DEFAULT

If a **File Share** has been set to **Default** = Yes, this will be the **File Share** that will be open if you go directly to the [File Explorer](#).

When no **File Share** has been set as **Default**, the **File Explorer** will simply show the first **File Share**.

FASTTAB AZURE FILES SHARE

This FastTab is only showing the detailed information of your File Share of **Storage Type** *Azure Files*
You can find more information regarding these properties in many Microsoft websites, like i.e.,
<https://docs.microsoft.com/en-us/rest/api/storageservices/get-blob-properties>.

If you want to see the **Last Changed** Date/Time of your files you need to have a checkmark in **Use Newest API Version**. This will be set by default to Yes, when creating a File Share of **Storage Type** *Azure Files*.

STORAGE TYPE = AZURE BLOBS

File Share

+

✓ Saved

Azure Blobs · test

File Explorer

More options

General

Name

test

Storage Type

Azure Blobs

Connection Code

FS

Default

☐

Azure Blobs Container

Last Modified

5-10-2021 22:56

Default Encryption Scope

\$account-encryption-key

Deny Encryption Scope Override

☐

Has Legal Hold

☐

Etag

URI

NAME

Name of the File Share.

STORAGE TYPE

You can choose between the following two options:

Azure Files	Offers fully managed cloud file shares that you can access from anywhere via the industry standard Server Message Block (SMB) protocol. You can mount Azure file shares from cloud or on-premises deployments of Windows, Linux, and macOS.
Azure Blobs	Allows unstructured data to be stored and accessed at a massive scale in block blobs. Also supports Azure Data Lake Storage Gen2 for enterprise big data analytics solutions.

NOTE

When you have an on-premises Installation the **Storage Type** of the **File Share** must be *Azure Files*.

When you have a cloud Installation you can use *Azure Files* and *Azure Blobs*, but the *Azure Blobs* is cheaper.

CONNECTION CODE

The **Connection Code** to which the File Share is connected to.

DEFAULT

If a **File Share** has been set to **Default** = Yes, this will be the **File Share** that will be open if you go directly to the [File Explorer](#).

When no **File Share** has been set as **Default**, the **File Explorer** will simply show the first **File Share**.

FASTTAB AZURE BLOBS CONTAINER

This FastTab is only showing the detailed information of your File Share of **Storage Type** *Azure Blobs*

You can find more information regarding these properties in many Microsoft websites, like i.e.,

<https://docs.microsoft.com/en-us/rest/api/storageservices/get-blob-properties>

FILE SHARES FOR LOCAL FILES

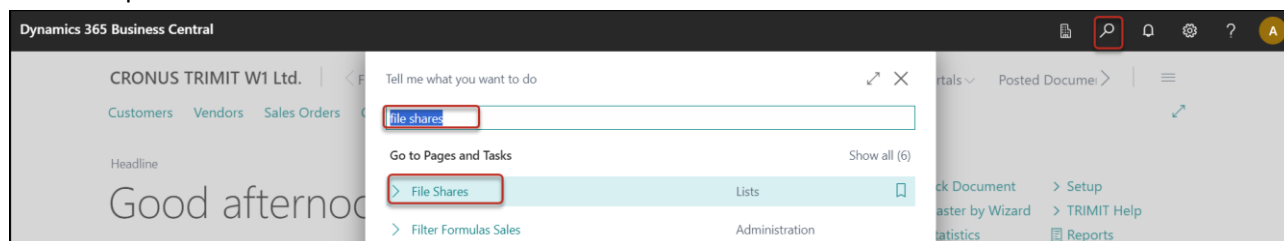
Besides [File Shares for Azure Storage](#) related to a specific **Connection Setup**, we are also able to use **File Shares** (and File Explorer) in TRIMIT for **Storage Type Local Files** if you also have **ForNAV** installed.

Requirements for this are:

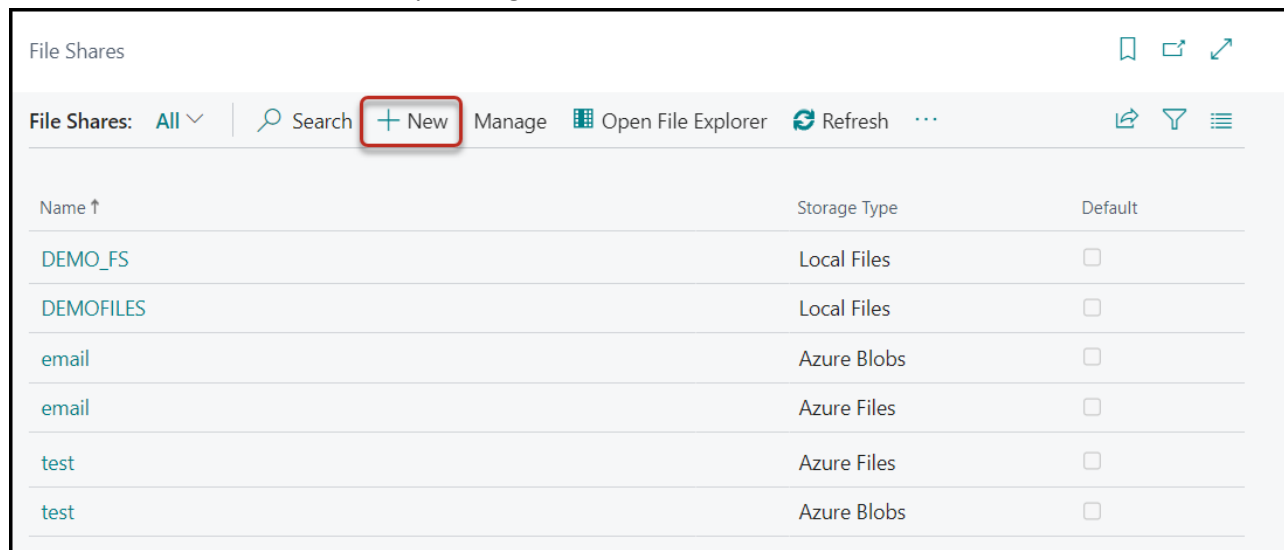
- **ForNAV** at least Release **7.2.0.1** has been installed.
- **TRIMIT AddOn ForNAV** at least Release **23.1.11614.0** has been installed.
- **ForNAV Direct Printing** has been installed on the Machine (Server/PC) where the *Local Files* will be stored and has been setup accordingly.

In TRIMIT you can create a **File Share** for **Storage Type Local Files** which is directed to the Folder specified in the **ForNAV Direct Printing Configuration config.json**

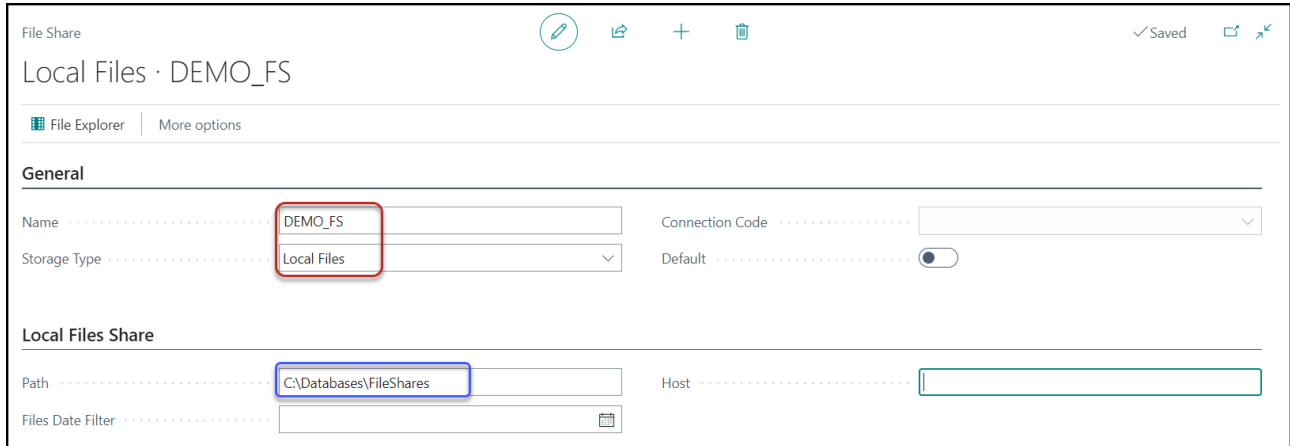
You can open **File Shares** via **Search File Share**.



And can create a new **File Share** by clicking **+ New** in the **File Shares** List:

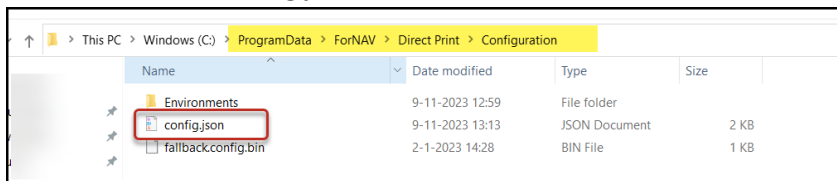


For sharing Documents and Files on a local Machine (Server/PC), the **Type** must be set to *Local Files* and the **Path** could be the Path for those Documents and Files, but it is actually determined by the setting in the ForNAV Direct Printing Configuration. I.e.,

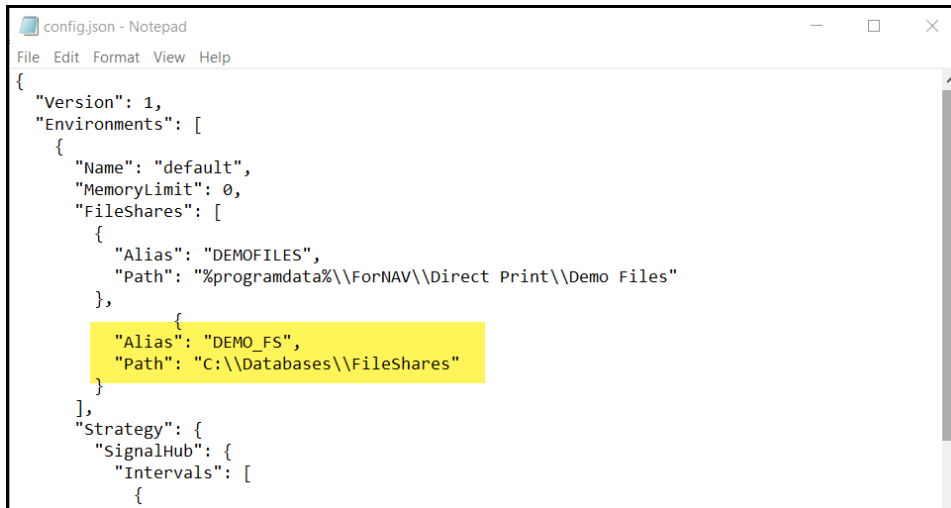


The **Path** for the File Share must be specified in the **config.json** of ForNAV Direct Printing Configuration.

Even if the **Path** in the File Share would be empty, the system can show the **File Explorer** for the files in the **Path** that is in the config.json.



Where the **Alias** should have the same name as the **File Share Name** in BC and the **Path** should be the path where you store your local files. I.e.,



```
{
  "Version": 1,
  "Environments": [
    {
      "Name": "default",
      "MemoryLimit": 0,
      "FileShares": [
        {
          "Alias": "DEMOFILES",
          "Path": "%programdata%\ForNAV\Direct Print\Demo Files"
        },
        {
          "Alias": "DEMO_FS",
          "Path": "C:\\Databases\\FileShares"
        }
      ]
    }
  ],
  "Strategy": {
    "SignalHub": {
      "Intervals": [
        {

```

For installing/setup of the **ForNAV** components we refer to the Documentation of ForNAV.

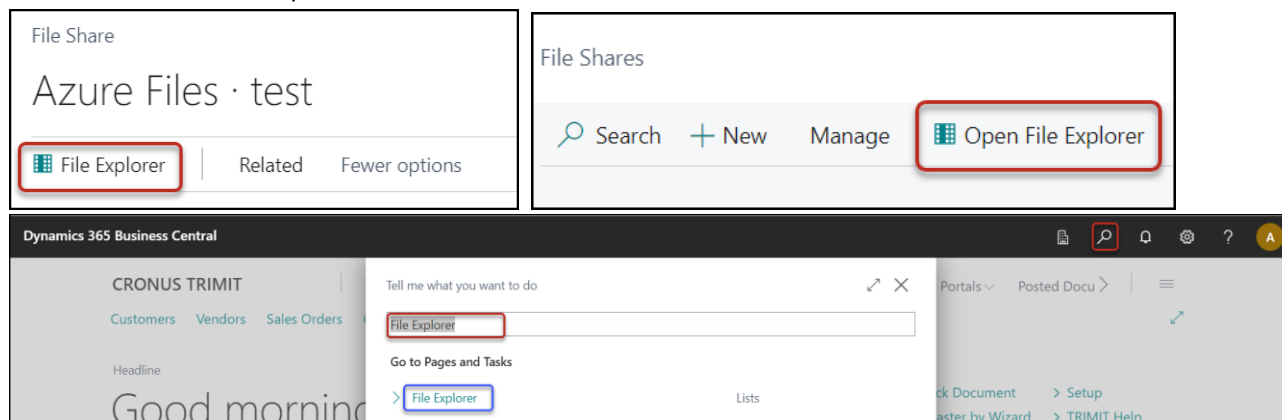
NOTE

If the **Path** is related to a network drive (and not your local PC) you need to be aware that the Service of **ForNAV** also has access to that network drive.

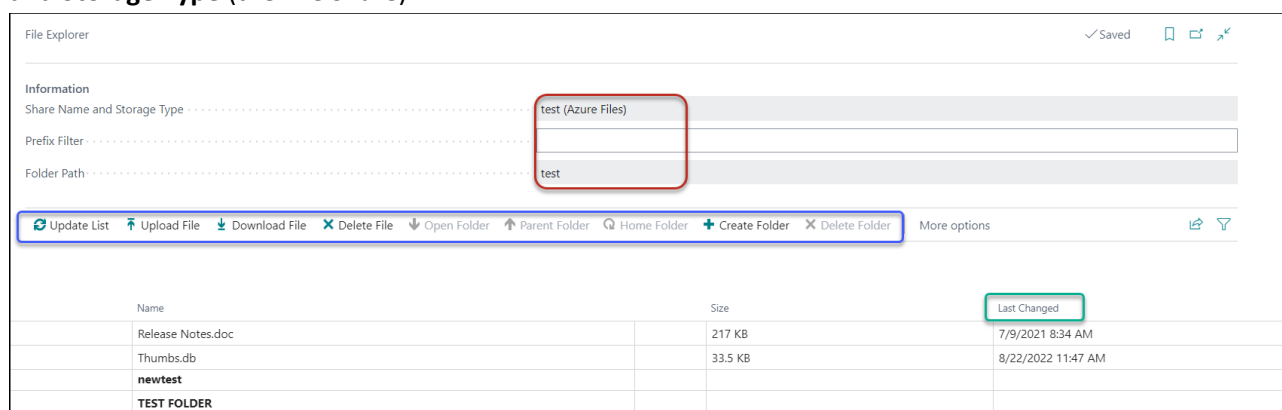
FILE EXPLORER

The **File Explorer** can be used for every **Storage Type** (*Azure Files, Azure Blobs and Local Files*).

The **File Explorer** can be found via **File Explorer** in the File Share Card, via **Open File Explorer** in File Shares List or via **Search File Explorer**



When clicking (**Open**) **File Explorer**, you can see the files that have been uploaded already in a **Share Name and Storage Type** (the File Share).



SHARE NAME AND STORAGE TYPE

If you opened the **File Explorer** via a **File Share**, the **Share Name and Storage Type** is filled and cannot be changed. Based on this **Share Name and Storage Type**, the already uploaded Files/Folders (**Name**) will be shown.

If you open the **File Explorer** via **Search**, you can choose an existing **File Share** and based on this, the already uploaded Files/Folders (**Name**) will be shown.

PREFIX FILTER

This field is not shown by default, but you can add it via **Personalize**.

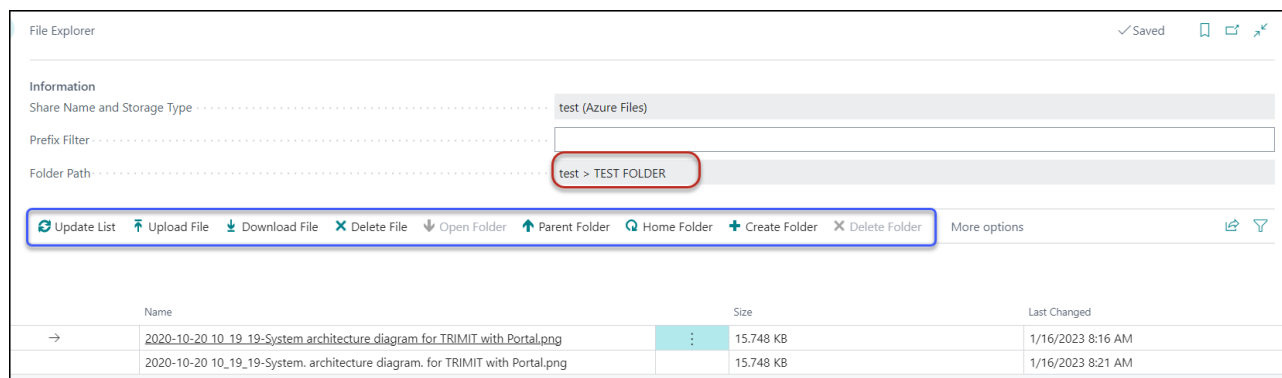
With this filter, you can filter on the **Names**, by entering the first characters of the **Names** you are looking for. It is however not a filter in which you can use an Asterisk (*) or Question Mark (?), etc.

Therefore, if you want to see all the Files/Folders that start with BC, you simply enter *BC*, and it will show all the Files/Folders that start with a "BC" – it is Case-Sensitive.

FOLDER PATH

The **Folder Path** will show you the Path of the shown **Names**.

If you would choose a **File Share**, and then choose a Folder (Name is shown **Bold**), this would be shown in the **Folder Path**. I.e., for **File Share** *test* and **Folder** *TEST FOLDER* the **Names** shown are in the **Folder Path** *test > TEST FOLDER*



Name	Size	Last Changed
→ 2020-10-20 10_19_System architecture diagram for TRIMIT with Portal.png	15.748 KB	1/16/2023 8:16 AM
2020-10-20 10_19_System architecture diagram for TRIMIT with Portal.png	15.748 KB	1/16/2023 8:21 AM

The active **Actions** for the **Names** list depend on the **Name** of the Files in the List.

The column **Last Changed** will only be shown for the **Azure Files** Storage Type, and only if the **Use Newest API Version** in the **File Share** has been set to **Yes**.

UPDATE LIST

This will update the list of the Files/Folders into the tables of TRIMIT.

This Action is always 'active'.

UPLOAD FILE

With this Action, you can upload any file into the File Share.

This Action is always 'active'.

DOWNLOAD FILE

With this Action, you can download any file from the File Share to your local device.

This Action is always 'active'.

DELETE FILE

With this Action, you can delete a file from the File Share – these are only the not-bold lines, because they represent the Folders.

This Action is always 'active'.

OPEN FOLDER

With this Action, you can open a Folder to see which Files are in it.

Only the **bold** lines represent Folders.

This Action is only 'active' if you are standing on a line that represents a Folder.

PARENT FOLDER

With this Action, you can go a level up, from a Folder content to the Folder.

This Action is only 'active' if you are standing on Files/Folders that have a Parent Folder

HOME FOLDER

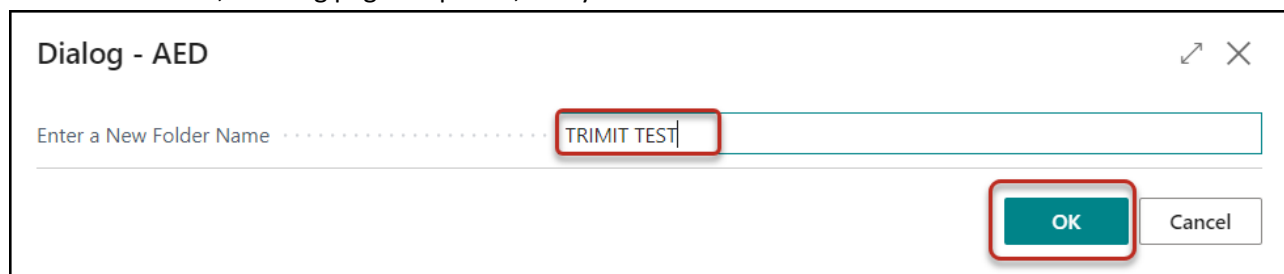
With this Action, you can go back to the highest level in the Folder structure.

This Action is only 'active' if you are standing on Files/Folders that have Parent Folder(s).

CREATE FOLDER

With this Action, you can create a new Folder.

For **Create Folder**, a Dialog page is opened, and you can enter the **Name** of the new Folder.



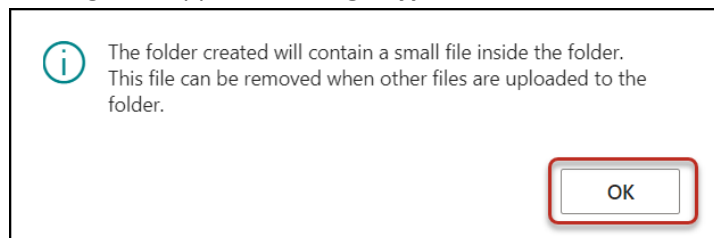
Dialog - AED

Enter a New Folder Name TRIMIT TEST

OK Cancel

Click **OK**.

Message will appear if **Storage Type** of the File Share is *Azure Blob*:

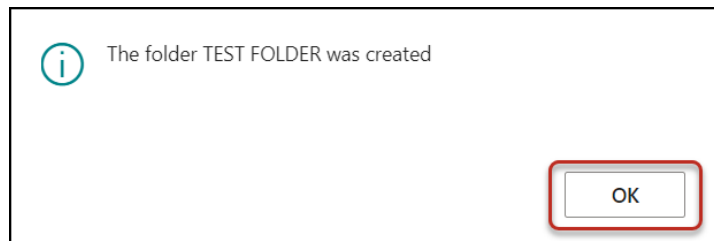


The folder created will contain a small file inside the folder.
This file can be removed when other files are uploaded to the folder.

OK

Click **OK**.

Message will appear regardless the **Storage Type** of the File Share:

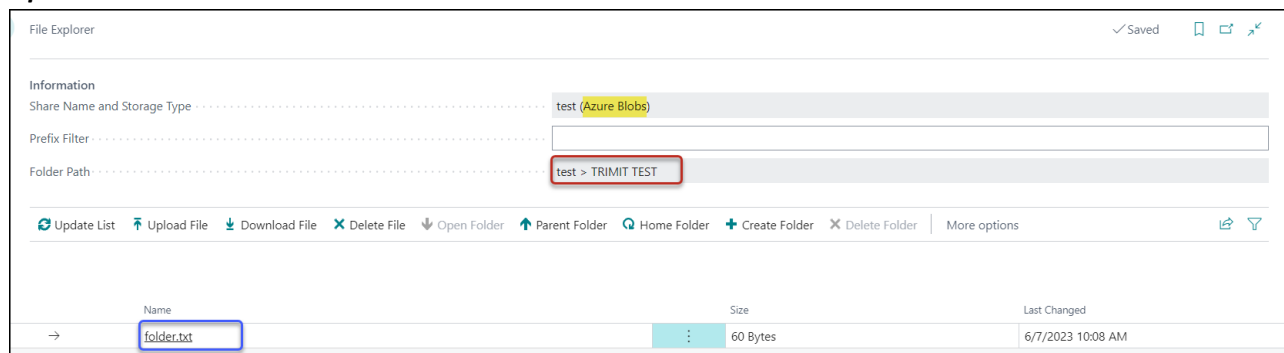


The folder TEST FOLDER was created

OK

Click **OK**.

Afterwards, in case of **Storage Type Azure Blob**, you can see the automatically created file via the Action **Open Folder**:



File Explorer

Information

Share Name and Storage Type test (Azure Blobs)

Prefix Filter

Folder Path test > TRIMIT TEST

Update List Upload File Download File Delete File Open Folder Parent Folder Home Folder Create Folder Delete Folder More options

Name	Size	Last Changed
→ folder.txt	60 Bytes	6/7/2023 10:08 AM

DELETE FOLDER

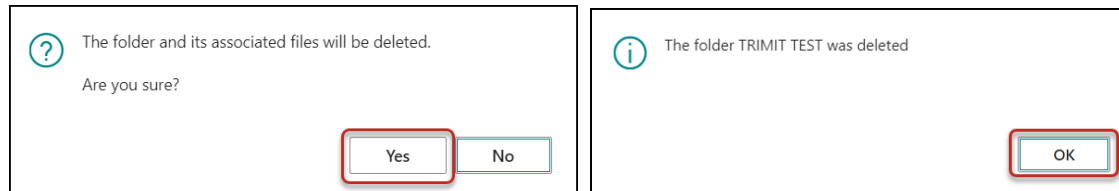
With this Action, you can delete a Folder.

Only the **bold** lines represent Folders.

This Action is only 'active' if you are standing on a line that represents a Folder.

What happens, is that the content of the Folder will be deleted, and if that has finished, the Folder itself will be deleted.

You will get a message before and after deletion:



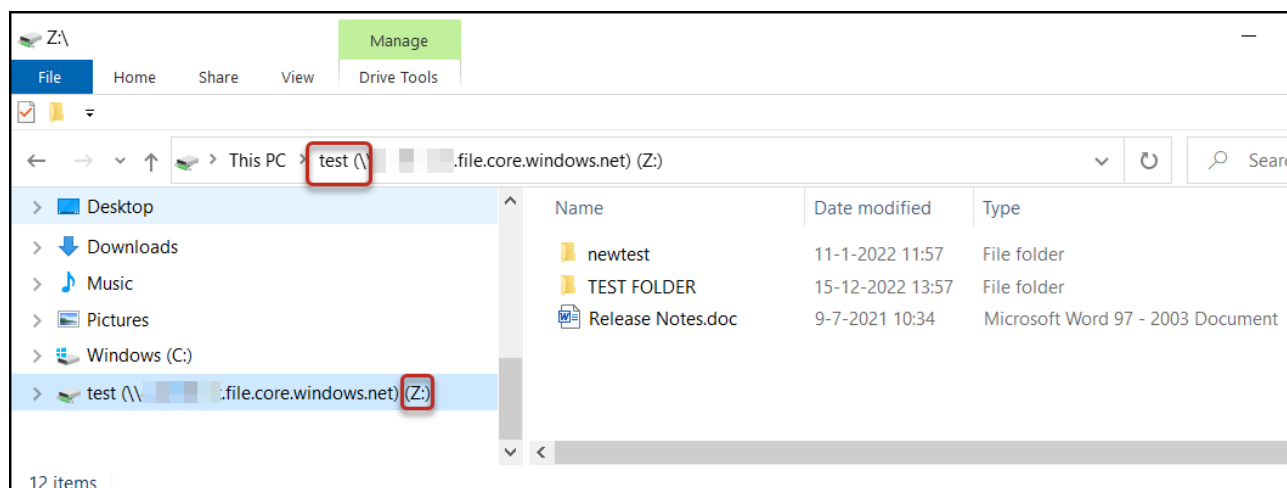
USE NETWORK DRIVE

You can create and run a .bat file to create a Network Drive for a direct connection to every File Share of **Storage Type Azure Files**:



1. Name for the **Network Drive**, i.e., Z:
2. **User Id** of your Connection Setup
3. **Name** of the File Share
4. **User Id** of your Connection Setup
5. **Password** of your Connection Setup

This would give you the possibility to see the content also directly in your regular File Explorer via a **Network Drive**:



NOTE

This is necessary when you have an on-premises Installation.
It is not necessary when you have a cloud Installation.