



WHITE PAPER

TRIMIT AZURE STORAGE SERVICES 23.1

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

Version: 23.1
Date: 07-06-2023

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INTRODUCTION

If you are running TRIMIT in the Cloud, you also will have created your own account for **Azure Storage Services** for your documents and files.

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 easier for users of TRIMIT, we have created the **TRIMIT Azure Storage Services** functionality by using and extending the **Connection Setups** that were already used for the Replication of data needed for TRIMIT Intercompany or the TRIMIT Portals.

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 Azure Storage Services 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 **6036562 trm Azure Storage Request Mgt.**
 6036563 trm Azure Storage Resp. Mgt.
 6036565 trm Def. File Storage Client
 6036566 trm Azure Storage Auth
 6036567 trm File Storage Handling
 6036568 trm File Storage Archiving

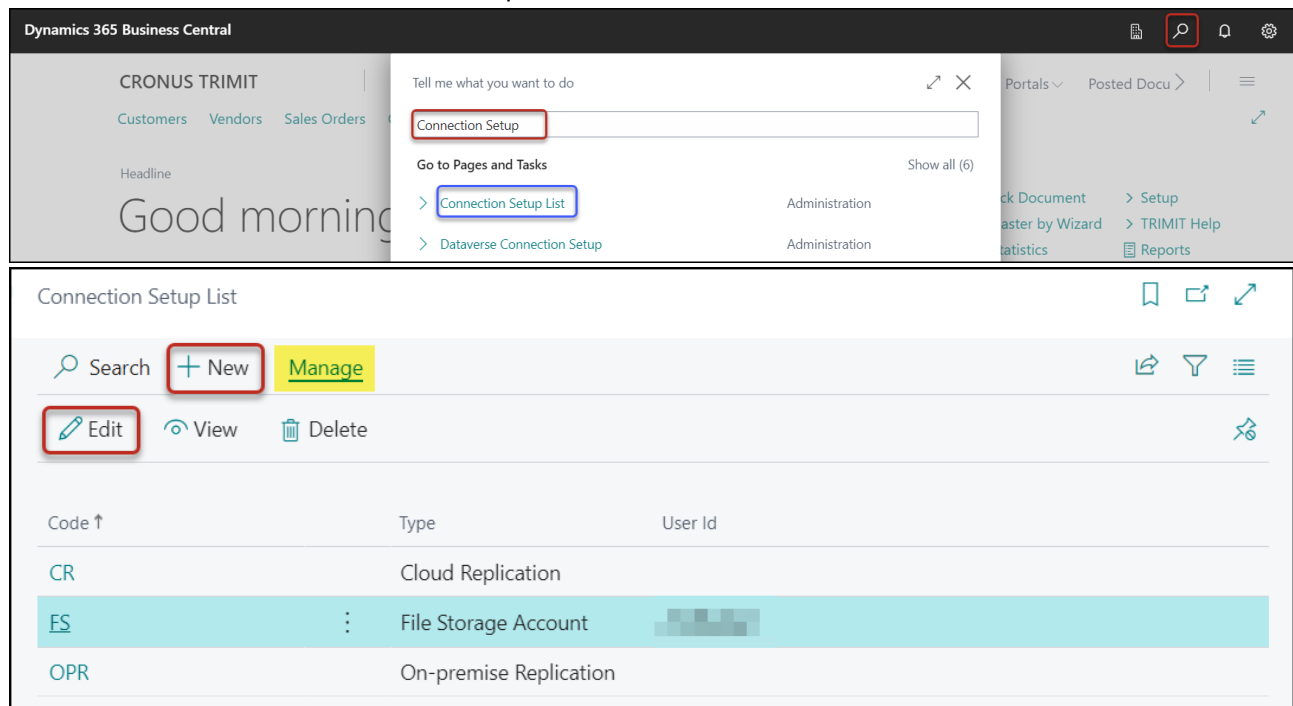
NOTE

The page **trm File Storage Lookup List** is not used within the TRIMIT Azure Storage Services, 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**.



Connection Setup List

Code ↑	Type	User Id
CR	Cloud Replication	
ES	File Storage Account	
OPR	On-premise Replication	

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

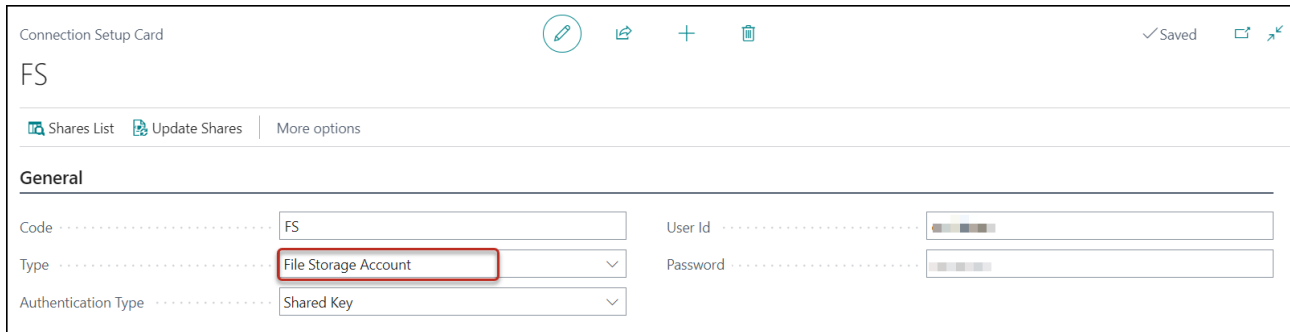
The **User Id** for your Connection.

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

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**.

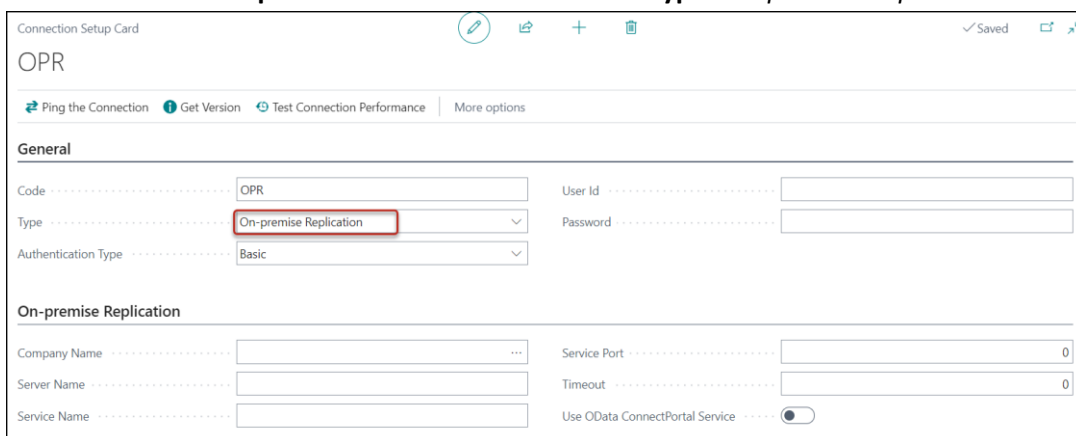
In case of **Type = On-premise Replication** it is the **Password** of your on-premises TRIMIT installation.

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**.



Connection Setup Card

OPR

Ping the Connection Get Version Test Connection Performance More options

General

Code OPR

Type On-premise Replication

Authentication Type Basic

User Id

Password

On-premise Replication

Company Name

Server Name

Service Name

Service Port 0

Timeout 0

Use OData ConnectPortal Service

Connection Setup Card

[Ping the Connection](#) [Get Version](#) [Test Connection Performance](#) [More options](#)

General

Code

User Id

Type

Cloud Replication

Password

Authentication Type

OAuth 2.0 Service to Service

Cloud Replication

Company Name

Timeout

Tenant

Use OData ConnectPortal Service ☒

Environment

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

FILE SHARES

The **File Shares** can be found via **Actions, Shares List** in Connection Setup Card of **Type File Storage Account** or via **Search File Shares**

CRONUS TRIMIT

Customers Vendors Sales Orders

Headline

Good morning

Tell me what you want to do

File Shares

Go to Pages and Tasks

File Shares

Filter Formulas Sales

Show all (6)

Lists

Administration

Portals

Posted Docu

Back Document

Master by Wizard

Statistics

Setup

TRIMIT Help

Reports

File Shares

Search

+ New

Manage

Open File Explorer

Refresh

Set As Default

Connection

...

Edit

View

Delete

Name ↑		Storage Type	Default
email	⋮	Azure Blobs	☐
email		Azure Files	☐
test		Azure Blobs	☐
test		Azure Files	☐

In **File Shares** you will see the File Shares that have already been created in **Azure Storage Services** or via **TRIMITs 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

File Share

+

✓ Saved

File Explorer

More options

General

Name

test

Storage Type

Azure Files

Connection Code

FS

Default

☒

Azure Files Share

Last Modified

8/19/2019 8:11 PM

Deleted

☐

Deleted Time

Quota

10

Version

Enabled Protocols

Snapshot

Use Leases when Writing

☐

Use Newest API Version

☒

Etag

0X8D724D0A99EDE53

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](#).

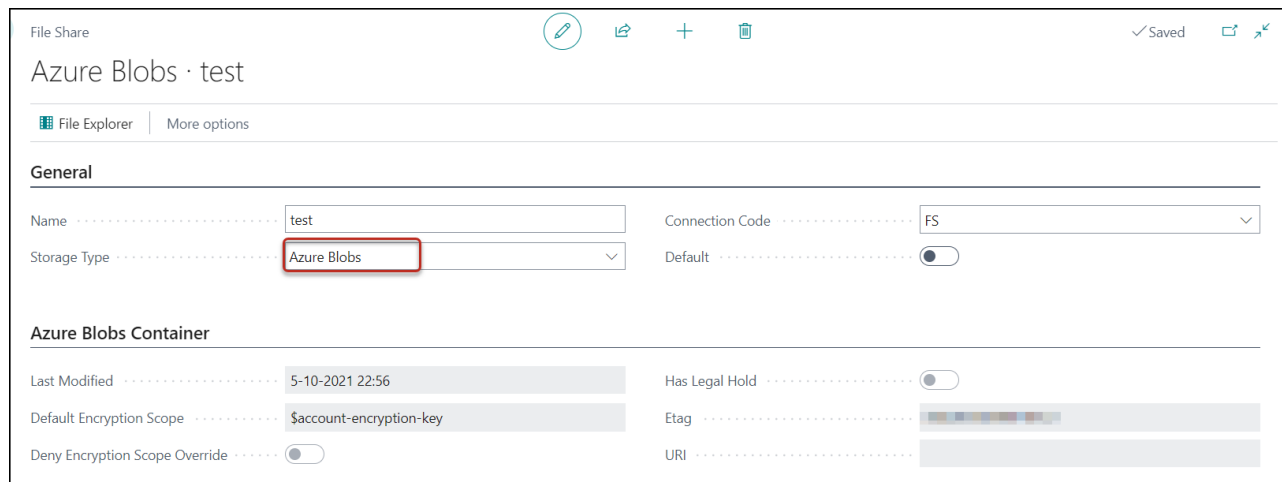
When no **File Share** has been set as **Default**, the **File Explorer** will simply show the first **File Share**.

FASTTAB AZURE 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



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](#).

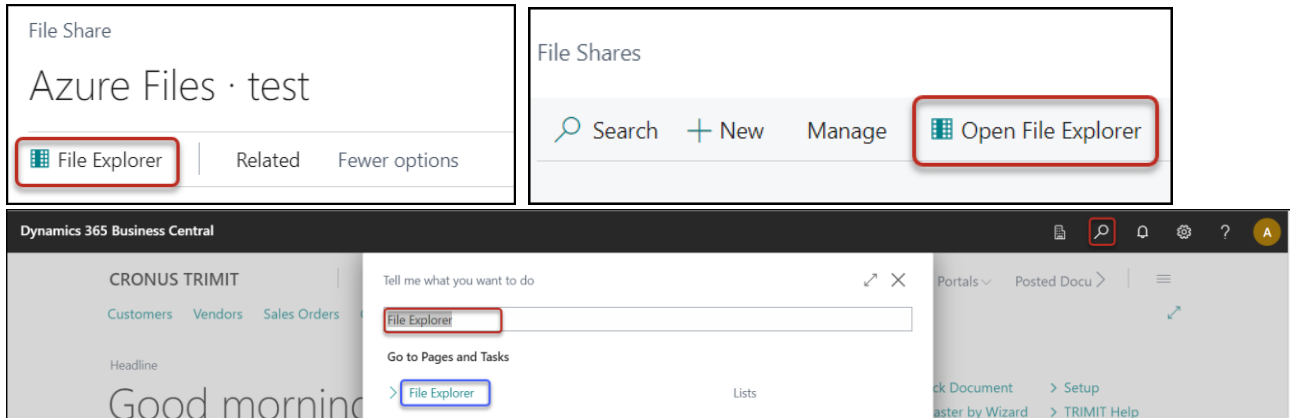
When no **File Share** has been set as **Default**, the **File Explorer** will simply show the first **File Share**.

FASTTAB AZURE BLOBS CONTAINER

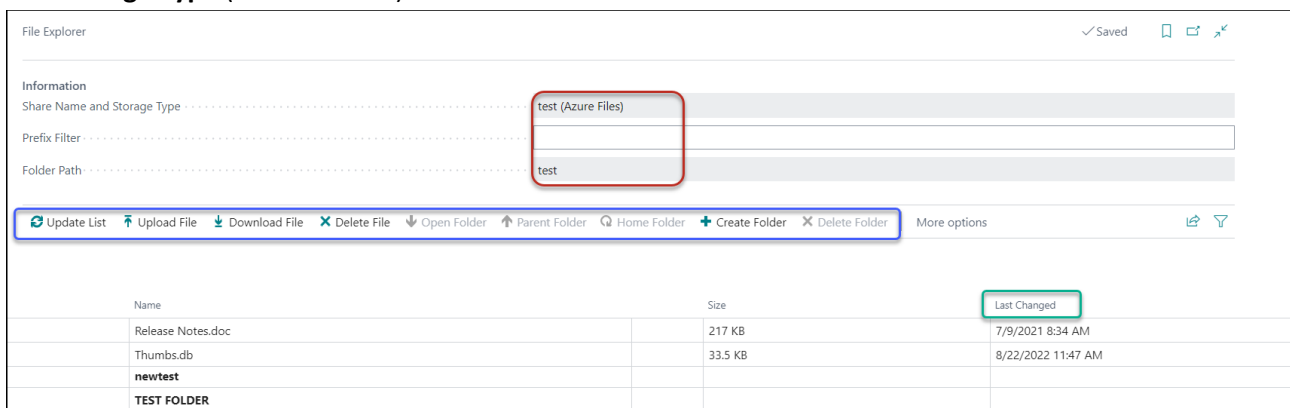
This FastTab is only showing the detailed information of your File Share of **Storage Type Azure Blobs**
You can find more information regarding these properties in many Microsoft websites, like i.e.,
<https://docs.microsoft.com/en-us/rest/api/storageservices/get-blob-properties>

FILE EXPLORER

The **File Explorer** can be found via **File Explorer** in 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**.

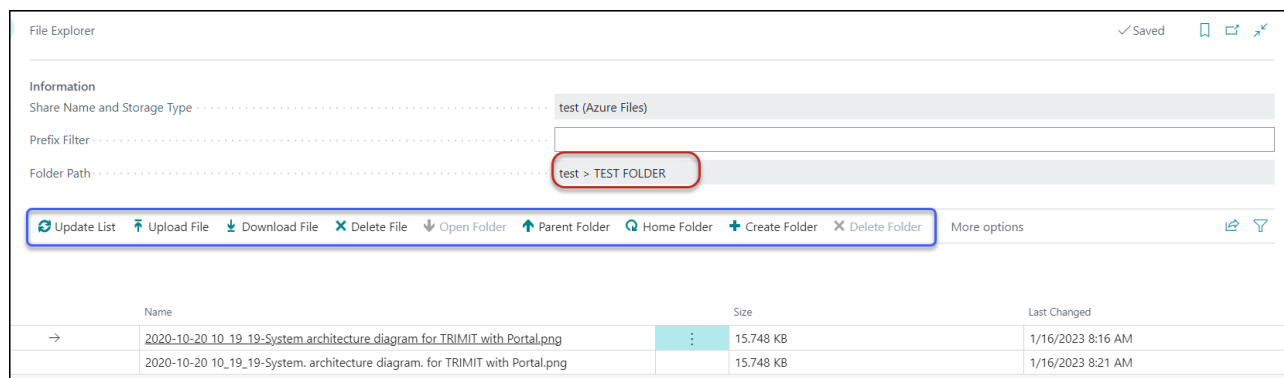
With this filter, you can filter on the **Names**, by entering the first characters of the **Names** you are looking for. It is however not a filter in which you can use an Asterix (*) or Question Mark (?), etc.

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 I 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*



The screenshot shows the File Explorer interface. The 'Folder Path' field is highlighted with a red box and contains the text 'test > TEST FOLDER'. Below the path, there is a toolbar with various actions: Update List, Upload File, Download File, Delete File, Open Folder, Parent Folder, Home Folder, Create Folder, and Delete Folder. At the bottom, there is a table with columns: Name, Size, and Last Changed. The table contains two rows of files, both with names starting with '2020-10-20 10_19-System architecture diagram for TRIMIT with Portal.png'.

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

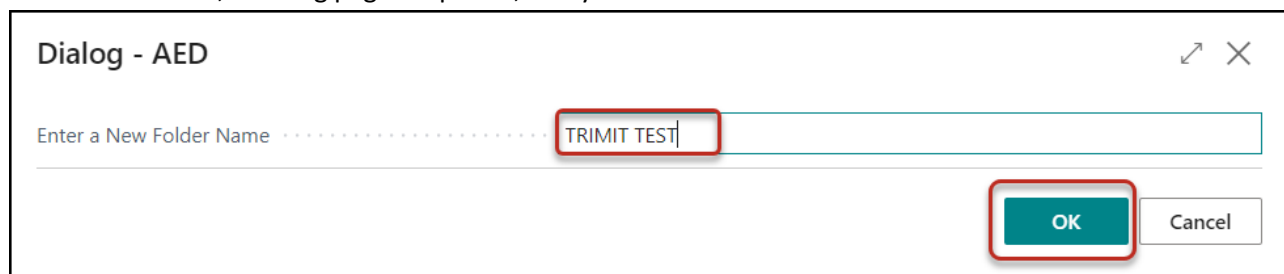
With this Action, you can go back to the highest level in the Folder structure.

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.



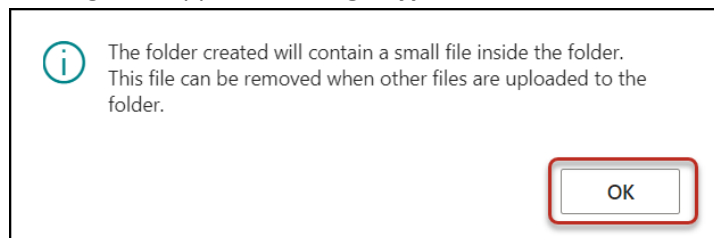
Dialog - AED

Enter a New Folder Name TRIMIT TEST

OK Cancel

Click **OK**.

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

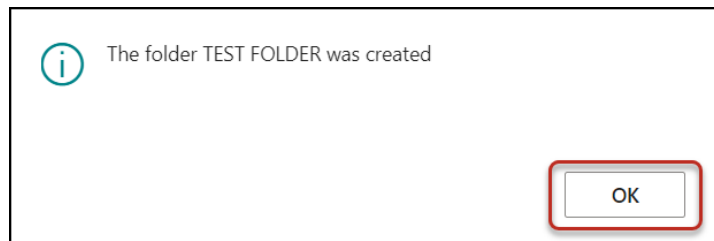


The folder created will contain a small file inside the folder.
This file can be removed when other files are uploaded to the folder.

OK

Click **OK**.

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

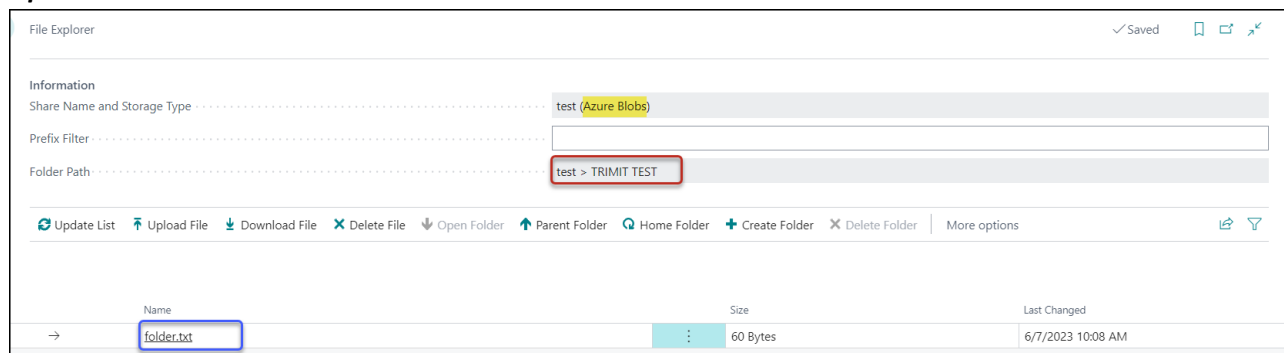


The folder TEST FOLDER was created

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

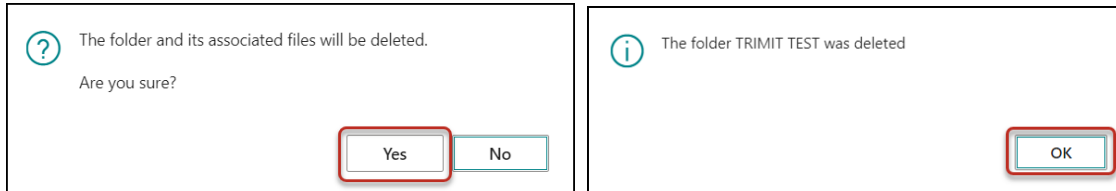
With this Action, you can delete a Folder.

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:



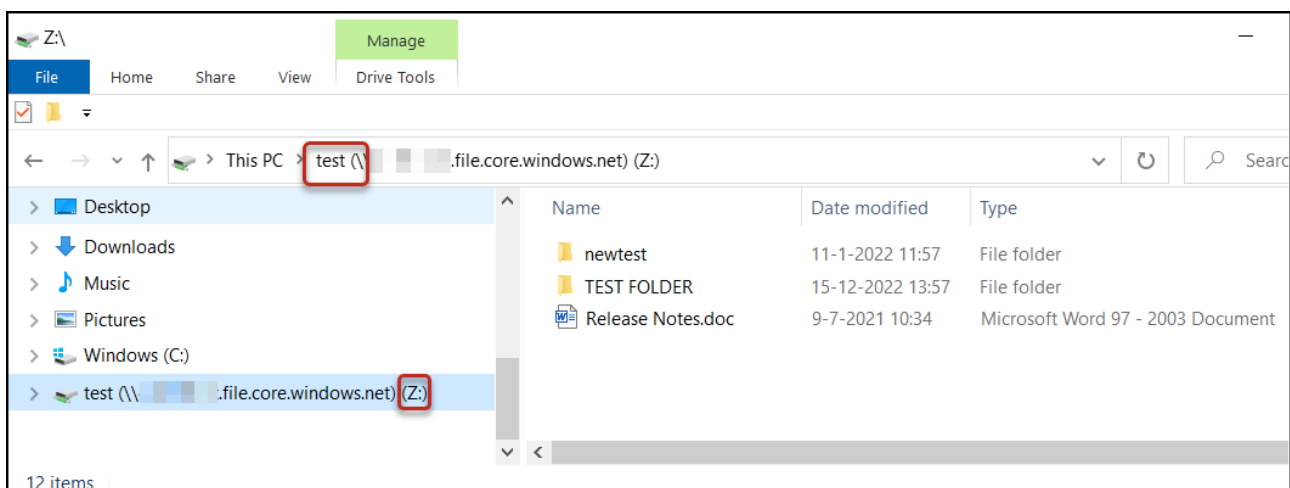
USE NETWORK DRIVE

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