# Install Guide - Setup Wizard - Microsoft Fabric

# WhereScape Enablement Pack for Microsoft Fabric - RED 10.2

This is a guide to installing the WhereScape Enablement Pack for Microsoft Fabric in WhereScape RED10

# **Table of Contents**

- Prerequisites For PostgreSQL Metadata
- Prerequisites For Microsoft Fabric
- Installation Through Setup Wizard
- Upgrade Of Existing Repository
- Post Install Steps Optional
- Source Enablement Pack Support
- Troubleshooting and Tips

# Prerequisites For PostgreSQL Metadata

Before you begin the following prerequisites must be met:

- Create Database and ODBC DSN :
  - Supported\* version of PostgreSQL (PostgreSQL 12 or higher)
    - A database to house the RED Metadata Repository.
    - A database for the Range Table DB (Optional)
    - A database to house scheduler (Optional)
- Software Installations
  - WhereScape RED10 with valid license key entered and EULA accepted
  - ° WhereScape Enablement Pack for target database version RED10
- Windows Powershell (64 bit) version 4 or higher
  - To check Windows Powershell Version:
    - Run below command in Windows Powershell

Get-Host | Select-Object Version

Run below command in Command Prompt

powershell \$psversiontable

Run the following command using PowerShell

The security protocol TLS 1.0 and 1.1 used by PowerShell to communicate with PowerShell gallery has deprecated and TLS 1.2 has been made mandatory

```
[Net.ServicePointManager]::SecurityProtocol = [Net.ServicePointManager]::
SecurityProtocol -bor [Net.SecurityProtocolType]::Tls12
Register-PSRepository -Default -Verbose
Set-PSRepository -Name "PSGallery" -InstallationPolicy Trusted
```

Progress bar placeholder info line

Install-Module -Name PoshProgressBar -SkipPublisherCheck -Force

\*: RED supports the following versions for the metadata repository: PostgreSQL 12 or higher

# **Prerequisites For Microsoft Fabric**

Before you begin the following prerequisites must be met:

For Windows

• Install the latest Azure-CLI package - Latest MSI of the Azure CLI (64-bit)

• For Linux

• Install latest Azure CLI package using command:

```
curl -sL https://aka.ms/InstallAzureCLIDeb | bash
```

1. Open the Command prompt :

```
az login
```

- $^{\circ}$  Login using an Azure account having a Microsoft Fabric subscription
- 1. Create Database and ODBC DSN :
  - Microsoft Fabric
    - At least one schema available to use as a RED Data Warehouse Target
- 2. Python 3.8 or higher
  - Select "Add Python 3.8 to PATH" from installation Window
    - Pip Manager Install with command :

python -m pip install --upgrade pip

\* We recommend using case-insensitive (CI) collations during the creation of your Fabric Warehouse

# Installation Through Setup Wizard

Run Setup Wizard as administrator



Create new repository or upgrade already existing repository.

>	Red Setup Wizard	×
	Metadata Repository	
	WhereScape RED requires a PostgreSQL database repository to store its metadata.	
	Create a new metadata repository or select an existing metadata repository to continue:	
	Create new repository	
	Install the RED metadata, configure connections and install Enablement Packs	
	○ Use existing repository	
	Validate/upgrade your RED metadata and install/upgrade Enablement Packs	
	Cancel Next	

Select the created ODBC DSN, input login details with connection string and then select "Validate". Press Next

✓ Red Setup Wizard	×
Configure Metadata Database	
RED will need a database to store information about your data warehouse. Create a database for the R metadata and connect to it here.	ED
Data Source Name REQUIRED	
test_fb (64-bit) 🗸	
A Data Source Name created with the ODBC admin tool	
User Name	
Password	
Connection String	
dsn=\$DSN\$;uid=\$USER\$;pwd=\$PASSWORD\$;	
Validate Validated OK	
	2 ~
Cancel Previous	Next

Select the directory that contains unzipped Enablement Pack for installation. Press Next

		>
WhereScape Enablement Pack Enablement Packs contain complete RED configurations for working with a wide range of data sources and your licensed RED data warehouse platform. In order to use RED you must at leas install the Target Enablement Pack that matches your data warehouse database platform. Additional Enablement Packs can also be installed or upgraded with this installer. Download a <u>WhereScape Enablement Pack</u> from our Support portal and unzip the file to a local directory.	t	
Select a directory that contains an unzipped Enablement Pack for installation:		
Cancel	Previous	Next

Using the check boxed list, include or exclude the components that are to be installed. Press Next

PRed Se	tup Wizard			$\times$
				$\wedge$
	G10Nork Related (argeteps)			
	\RED10_TargetEP_Fabric_			
	Configure Enablement Pack			
	Choose to enable only certain components of the database enablement pack or click Next to enable the	m all.		
	✓ Database Function Set	~		
	🗹 Data Type Mappings Set	~		
	☑ UI Configurations	~		
	☑ Extended Properties	~		
	✓ Host Script Languages	~		
	✓ Python Modules	~		1
	☑ Templates	~		
				$\sim$
Ca	ncel Previous		Next	

Configure a target connection (example, Data Warehouse) and its target locations.Validate and press ADD.

ed Setup Wizard	×
Connection Name REQUIRED	^
Data Warehouse	
A unique name that identifies this connection	
Data Source Name REQUIRED	
Fabrics (64-bit) 🗸	
A Data Source Name created with the ODBC admin tool	
User Name	
Password	
Connection String	
dsn=\$DSN\$;uid=\$USER\$;pwd=\$PASSWORD\$;	
Target Storage Locations REQUIRED         Existing schema (or database names depending on platform) for object storage         Ioad	
+ Add another Location	_
Validate 2 Add	~
ancel	Previous Next

When done, press ADD and then Press Next to advance.

🎾 Red S	etup Wizard		×
	Add Targets		
	Configure the connection where your data warehouse will live.	Added Targets	
		Data Warehouse Fabrics	х
	+		
	Add another target		
С	ancel	Previous	Next

Configure a data source connection (optional) and its target locations. Validate and press ADD. Press Next to advance.

Red Set	up Wizard		
Add ODBC Sources			
Add ODBC data sources now or click 'Next' to skip this your sources later in RED	step and configure	Added Sources	
Connection Name			
A unique name that identifies this connection			
Data Source Name			
A Data Source Name created with the ODBC admin tool	~ ♡		
User Name			
Password			
Validate	Add		
		_	
incel		Previous	Nex

## Review the installation summary and press Install

Red Setup Wizard		×
		^
Summary		
Metadata Location	^	
ODBC Data Source: test_fb		
ODBC Database: (empty)		
ODBC User Name:		
Connection String: dsn=\$DSN\$;uid=\$USER\$;pwd=\$PASSWORD\$;		
RDBMS Type: PostgreSQL		
Enablement Pack Directory "G:\Work Related\targeteps \RED10_TargetEP_Fabric_beta-240925-1444"	^	
Database Functions Set Database Function Sets/Fabric Function Set.xml (49 KB)		
Data Type Mappings Set		
Data Type Mappings/Fabric from Fabric.xml (2 KB)		
Data Type Mappings/Fabric from SQL Server.xml (5 KB)		
Extended Properties		~
		_

Clicking on the View Logs will take to the installation log. Click on Finish once the installation is completed successfully.

Red Setup Wizard					
WhereScape®					
RED					
Your WhereScape RED repository was successfully configured! Note: Some Enablement Pack installations require further configuration steps once in RED. When required this additional configuration will start automatically within RED after log in.					
☑ Launch RED					
View Logs				Finish	
Login to WhereScape RED.					
			x		
		REPOSITORY LOGI	N		
Where Scape <sup>®</sup>	Data Sources:	test_fb (64-bit)	-		
	Profile:		$\sim$		
RED	Database Login ID:				
	Password:				
Version 10.2.0.0 by WhereScape, Inc. Copyright © 2024	Connection String:	asn=\$DSN\$;uid=\$USI	=rt\$;pwa=\$P		
Licensed to Data Entrega Partner License Expires 31 DEC 2	2024	METADATA REPOSITORY			
	RED User Name:	CONNECT CANCEL	HELP		

Note: There is a post-install script that will run at the first login to RED10 to complete the post setup wizard installation process. You will be directed to below PowerShell window which will give brief explanation about post installation process.



Press OK to start the post installation. If pressed Cancel installation will stop and user will be directed to RED.

The user will be directed to the window below, where they have to select the target connection to be configured. Additionally, by deselecting the provided options, the user can choose not to install a particular option. "Reset Extended Properties" is deselected by default.

Target Connection	-		×
Select the target connection to co	nfigure		
			•
Select suitable boxes to install se	elected o	ptions	
Options Configuration			
Deployment Applications			
V Python Libraries			
Powershell Modules			
Reset Extended Properties			
ОК		Cance	el

You will be directed to below PowerShell window. Provide the directory that contains unzipped Enablement Pack.



### Press OK

The user will be directed to the window below, where they have to select the Create new profile or use existing one option.



Note: For fresh installation RED will create profile file with same name as DSN, which the user can use or choose to create new profile file.

#### Press Ok.

For "Yes, Create new one" option , user will be directed to the window below.

Target Connection Det	tails	_		$\times$
Enter Details For D	ata Warehouse			
User ID				
Password				
Connection String	DSN=\$DSN\$;UID=\$USER\$;PW	/D=\$PASS	WORD\$;	^
DSN				<ul> <li>✓</li> <li>✓</li> </ul>
	,			
	ОК			

Note: User can use default connection string or input new one.

Press OK

The user will be directed to the window below, where user can add profile name.

🎾 Profile File Name	_	$\times$
Please enter the profile fil	le name:	
	ок	/

### Press Ok.

The below pop up will come to confirm the user that profile is created at that location



### Press OK.

If the user choose "No, Use existing one" option.



### Press OK

The user will be directed to the window below ,where user can select the exiting profile file.

Select the Profile File		-	$\times$
1profile			•
	ОК		

### Press OK.

The progress bar will show the post installation progress.

Post-Installation Steps	_	$\times$
		_
25%		
Enablement Pack Setup		
Setting extended properties and windows connection		

User will have to choose the schema for the target setting that were provided. One pop up will come for setting default target schema for Date Dimension.

🎾 Select Target Name	_		$\times$
Please select target name	e to install	Date Dimer	ision:
load			•
(	ЭК	Cancel	

After selecting the target schema progress bar will show the progress for the installation and once it's completed, you will get the below pop up.



### After pressing OK RED10 will open automatically.

Development	▼₽×	Object Results
> 🗂 All Objects		
		Results 🔍 🗐 🗐
		Object Message ^
	0	wsl_post_i ptions\templateRoutine_py.objtype" was imported and 52 definitions were
	(	wsl_post_i inserted into test_fb [test_fb] (64bit)
	0	vsl_post_i 401 Success options:import The file "G:\Work Related\targeteps\RED10_TargetEP_Fabric_beta-240925-1444\O
	(	wsl_post_i ptions\Options.xml" was read and inserted into test_fb [test_fb] (64bit)
	(	wsl_post_i 601 Success deployment:deploy Application Deployment Complete
		wsl_post_i 700 Success Execute-SQL-Block (Execute SQL Queries from ODBC connection to: test_fb)
		wsl_post_i
		wsl_post_i
	(	wsl_post_i Installer log saved to file: C:\Users\INDIAN\AppData\Local\Temp\WsEnablementPackInstall_0927045059.log
	6	L wsl_post_i Post installation steps are completed. Please restart RED once to continue
		•

User will need to refresh the All Objects tree once.



# **Upgrade Of Existing Repository**

For upgrade of existing repository

• From host script set script type of wsl\_post\_install\_enablement\_pack as Auto Execute - PowerShell Script

Host Script wsl_post_ins	tall_enablement_pack			×
Properties	Name:	wsl_post_install_enablement_pack	Type: A	uto Execute - PowerShell : 🗸
Notes	Purpose:	This script was inserted by WhereScape RED CLI		~
				~
	Owner:	WhereScape RED CLI	Delete Lock	
	Last Update By:			
	Connection Name:	~	]	
	Edit Lock Locked For Edit By:			
	Edit Lock Reason or Last Update:	New Script		~

#### **Guide for setting Fabric Data Factory Pipeline**

#### The EP contains 2 load templates:

- 1. wsl\_fabric\_pyscript\_load will support load for Database, OneLake and traditional file parser.
- wsl\_fabric\_pyscript\_load\_df template is for FDF and does not support XML and JSON file in this release.

#### Fabric Data Factory Guide using load\_df template:

In Fabric Data Factory, currently only OneLake sources are supported. When creating a connection to browse files, the Lakehouse name must be specified in the source connection. After browsing the connection and selecting a file, dragging the table will automatically populate the source properties. Two additional extended properties are specifically available for pipelines: "Recreate Pipeline on run" and "Pipeline Timeout Duration."

Setting "Recreate Pipeline on run" to "True" ensures that a new pipeline is created each time the job is executed, with any existing pipeline with same name being deleted beforehand. If set to "False," the existing pipeline remains intact, and only the execution is performed. However, if a pipeline fails due to a data type issue or any other property-related problem, the pipeline must be deleted and recreated, as the pipeline's JSON code cannot be modified when the "Recreate Pipeline on run" property is set to "False". The default to this property is set to "True" in the script.

Whenever the Pipeline is created and data is loaded to the table, changing the Extended property to "False" will keep that existing pipeline as it is and act as a starting point for other operations which can be done.

erties	50 \$i		
et Settings	4 General		
ne Templates	Debug Mode	FALSE	
ided Properties	Unload Delimiter		
	Unicode Support	TRUE	
5	Split File Threshold	10000	
	Unload Enclosed By	•	
	Unload Escape Character	#	
	Blob Storage Account		
	Blob Storage Container		
	Blob Storage SAS Key		
	Export Single File		
	Recreate Pipeline On Run		
	Pipeline Timeout Duration		
	BUILD_NAME	RED10_TargetEP_Fabric_release-240930-1947	
	BUILD_NAME	RED10_TargetEP_Fabric_release-240930-1947	

The second property, "Pipeline Timeout Duration," is responsible for monitoring the pipeline once it is executed. By default, the timeout is set to 120 minutes in script. If the execution exceeds this duration, the pipeline will continue running in the background, but RED will notify the user that the pipeline is still in progress. At this point, the user can monitor the pipeline through the Fabric portal. It's important to note that even if the timeout is set to 120 minutes, if the job completes in a shorter time—such as within a minute or two—RED will mark the job as successful and display the result in the result pane accordingly

arget Settings outine Templates xtended Properties	General     Debug Mode     Unload Delimiter     Unicode Support     Split File Threshold     Unload Enclosed By     Unload Escape Character     Blob Storage Account     Blob Storage Container     Blob Storage Container     Blob Storage File     Recreate Pipeline On Run	FALSE     TRUE 10000 #	
outine Templates xtended Properties	Debug Mode Unload Delimiter Unicode Support Spilt File Threshold Unload Enclosed By Unload Escape Character Blob Storage Account Blob Storage Container Blob Storage SAS Key Export Single File Recreate Pipeline On Run	FALSE   TRUE 10000 - #	
otended Properties	Unicad Delimiter Unicode Support Spili File Threshold Unicad Enclosed By Unicad Escape Character Blob Storage Account Blob Storage SAS Key Export Single File Recreate Pipeline On Run	FILCE I TRUE 10000 - #	
otes	Unicode Support Split File Threshold Unload Enclosed By Unload Escape Character Blob Storage Account Blob Storage SAS Key Export Single File Recreate Pipeline On Run	TRUE 10000 -	
otes	Spiit File Threshold Unload Enclosed By Unload Escape Character Blob Storage Account Blob Storage Container Blob Storage SAS Key Export Single File Recreate Pipeline On Run	10000 - #	
	Unioad Enclosed By Unioad Escape Character Blob Storage Account Blob Storage Container Blob Storage SAS Key Export Single File Recreate Pipeline On Run		
	Unload Escape Character Blob Storage Account Blob Storage Container Blob Storage SAS Key Export Single File Recreate Pipeline On Run	¢	
	Blob Storage Account Blob Storage Container Blob Storage SAS Key Export Single File Recreate Pipeline On Run		
	Blob Storage Container Blob Storage SAS Key Export Single File Recreate Pipeline On Run		
	Blob Storage SAS Key Export Single File Recreate Pipeline On Run		
	Export Single File Recreate Pipeline On Run		
	Recreate Pipeline On Run		
	Pipeline Timeout Duration		
	BUILD NAME	RED10 TargetEP Fabric release-240930-1947	
	Pipeline Timeout Duration Specifies the timeout period (in r message will be generated. For e minutes.	minutes) to monitor the running pipeline. If the pipeline status isn't updated within the set d example, if set to 5, it will check the pipeline's status for 5 minutes before issuing a timeout.	uration, a time Default 120

There can be issues with data types when loading data through Fabric Data Factory. In such cases, the Fabric pipeline will display an error, suggesting using varchar(8000) for the affected column (e.g., ""). The user should update the column's data type to match the recommendation from Data Factory. After making the changes, the table should be recreated, the script regenerated, and the pipeline executed again with the extended property "Recreate Pipeline on run" set to "True" or left blank

# **Post Install Steps – Optional**

If you used the script Setup Wizard for installation then the following optional post install steps are available.

## **Configure Connections**

These connections added that will optionally require your attention:

- 1. Connection: Data Warehouse ('Fabrics')- This connection was setup as per parameters provided in Setup Wizard
  - a. open Properties and click derive button for Database Host/Server and Database ID.
    - b. open it's properties and check extended properties tab, set it up for Blob Storage Account, Blob Storage Container and Blob Storage SAS Key
- 2. Connection: 'Database Source System' this connection was setup as an example source connection,
  - a. open its properties and set it up for a source DB in your environment
  - b. or you can remove it if not required

### **Enable Script Launcher Toolbar**

There are a number of stand-alone scripts which provide some features such as "Ranged Loading", these scripts have been added to the Script Launcher menu but you will need to enable the menu toolbar item to see them.

To enable the Script Launcher menu in RED: Select menu item 'Home->Script Launcher'

# Source Enablement Pack Support

Source Pack Name	Supported By Microsoft Fabric	Supported Features	Prerequisites/Permissions Required for Microsoft Fabric
Google Cloud Storage	Yes	Download to local and load	None
Azure Data Lake Storage Gen2	Yes	Download to local and load	None
Amazon S3	Yes	Download to local and load	None
Windows Parser	Yes	Load Template, Source Properties will have option to select parser type to load the files.	Refer to Windows Parser Guide
Azure One Lake	Yes	Download to local and load	Refer to Windows Parser Guide

# **Troubleshooting and Tips**

## **Run As Administrator**

Press the Windows Key on your keyboard and start typing cmd.exe, when the cmd.exe icon shows up in the search list right click it to bring up the context menu, select "Run As Administrator"

Now you have an admin prompt navigate to to the folder where you have unpacked your WhereScape Red Enablement Pack to using the 'cd' command:

C:\Windows\system32> cd <full path to the unpacked folder>

Run batch (.bat) scripts from the administrator prompt by simply typing the name at the prompt and hit enter, for example:

C:\temp\EnablementPack>install\_WsIPowershell\_Modules.bat

Run Powershell (.ps1) scripts from the administrator prompt by typing the Powershell run script command, for example:

C:\temp\EnablementPack>Powershell -ExecutionPolicy Bypass -File .\Setup\_Enablement\_Pack.ps1

Notes: In the event you can not bypass the Powershell execution policy due to group policies you can instead try "-ExecutionPolicy RemoteSigned" which should allow unsigned local scripts.

## **Windows Powershell Script Execution**

On some systems Windows Powershell script execution is disabled by default. There are a number of workarounds for this which can be found by searching the term "Powershell Execution Policy".

Here is the most common workaround which WhereScape suggests, which does not permanently change the execution rights:

Start a Windows CMD prompt as Administrator, change directory to your script directory and run the WhereScape Powershell scripts with this command:

cmd:>Powershell -ExecutionPolicy Bypass -File .\<script\_file\_name.ps1>

### **Re-install Python Libraries**

Press the Windows Key on your keyboard and start typing cmd.exe, when the cmd.exe icon shows up in the search list right click it to bring up the context menu, select "Run As Administrator"

Now you have an admin prompt navigate to to the folder where you have unpacked your WhereScape Red Enablement Pack to using the 'cd' command:

C:\Windows\system32> cd <full path to the unpacked folder>

Run batch (.bat) scripts from the administrator prompt by simply typing the name at the prompt and hit enter, for example:

C:\temp\EnablementPack>uninstall\_WslPython\_Modules.bat

For installation of Python libraries there are two methods

• Method 1

Press the Windows Key on your keyboard and start typing cmd.exe, when the cmd.exe icon shows up in the search list right click it to bring up the context menu, select "Run As Administrator"

Now you have an admin prompt navigate to to the folder where you have unpacked your WhereScape Red Enablement Pack to using the 'cd' command:

C:\Windows\system32> cd <full path to the unpacked folder>

Run batch (.bat) scripts from the administrator prompt by simply typing the name at the prompt and hit enter, for example:

C:\temp\EnablementPack>install\_WslPython\_Modules.bat

Method 2

Press the Windows Key on your keyboard and start typing cmd.exe, when the cmd.exe icon shows up in the search list right click it to bring up the context menu, select "Run As Administrator"

Now you have an admin prompt navigate to to the folder where you have unpacked your WhereScape Red Enablement Pack to using the 'cd' command:

C:\Windows\system32> cd <full path to the unpacked folder>

Run the below command

python -m pip install -r requirements.txt

## For upgrade of existing repository

8	An Error Occurred	×
Enab	olement Pack Failure	
The scrip "PowerS PowerSh	ot wsl_post_install_enablement_pack already exists as type hell (64-bit)". Cannot change it to type "Auto Execute - nell".	
	Export To Clipboard Close	

In upgrade of exiting repository if the user gets above error then it means the script type of *wsl\_post\_install\_enablement\_pack* is set to PowerShell(64bit) change the script type to Auto Execute-PowerShell before upgrade or manually run the *wsl\_post\_install\_enablement\_pack* script from host script from RED after upgrade.

# If a valid RED installation can not be found

If you have RED 10.x or higher installed but the script (Setup\_Enablement\_Pack.ps1) fails to find it on you system then you are most likely running PowerShell (x86) version which does not show installed 64 bit apps by default. Please open a 64 bit version of Powershell instead and re-run the script

# Table name should be given in lowercase only

While loading the table, the table name should be given in lowercase, for example, load\_tablename; otherwise, loaded data will now get displayed.