# Install Guide - SetupWizard

# WhereScape Enablement Pack for Snowflake - RED 10

This is a guide to installing the WhereScape Enablement Pack for Snowflake for WhereScape RED10

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### 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 Snowflake**

Before you begin the following prerequisites must be met:

- Create Database and ODBC DSN :
  - Snowflake (ODBC driver version 2.22.01 or higher(64-bit))

    - At least one schema available to use as a RED Data Warehouse Target
      Snowflake driver Log Level set to 0 in the Windows Registry and the Snowflake DSN Tracing set to 0
- Software Installations
  - Snowflake SnowSQL (CLI Client)
- 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*

# Installation Through Setup Wizard

Run Setup Wizard as administrator

Red Setup Wizard	×
WhereScape®	
RED	
Metadata and Enablement Pack Installer	
This installer will take you through the steps to configure RED and enable your source and target platforms. This installer can be used for creating a new RED metadata repository or to configure an existing metadata repository by installing or upgrading WhereScape Enablement Packs.	
Cancel	Start

Create new repository or upgrade already existing repository.

$\triangleright$	Red Setup Wizard	×	
			ł
	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		
	O Use existing repository Validate/upgrade your RED metadata and install/upgrade Enablement Packs		
	Cancel	đ	

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

	Red Setup Wizard
Configure Metadata Data	base
-	
RED will need a database to store information a metadata and connect to it here.	about your data warehouse. Create a database for the RED
Data Source Name REQUIRED	
edw_snowflakered10 (64-bit)	
A Data Source Name created with the ODBC admin too	
A Data source Name created with the ODBC admin too	<i>n</i>
postgres	
Password	
••••	
Validate 🛇 Validated OK	
ncel	Previous

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

	Red Setup Wizard	
Where	eScape Enablement Pack	
sources and install the T	t Packs contain complete RED configurations for working with a wide range of data d your licensed RED data warehouse platform. In order to use RED you must at least arget Enablement Pack that matches your data warehouse database platform. Enablement Packs can also be installed or upgraded with this installer.	
Download a a local direc	<ul> <li><u>WhereScape Enablement Pack</u> from our Support portal and unzip the file to ctory.</li> </ul>	
Select a dir	ectory that contains an unzipped Enablement Pack for installation:	
C:\Users\	HP\Downloads\31-03-2023postfinal\RED10_TargetEP_Snow	
The directory	that contains required enablement pack sub-directories of items	
· · · · · · · · · · · · · · · · · · ·		
Cancel	Previous	Next

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

>	Red Setup Wizard		×
	C:\Users\HP\Downloads\31-03-2023postfinal \RED10_TargetEP_Snowflake_beta-230331-0235 Configure Enablement Pack Choose to enable only certain components of the database enablement pack or click Next to enable ther	m all.	
	☑ Database Function Set	~	
	☑ Data Type Mappings Set	~	
	☑ UI Configurations	~	
	☑ Extended Properties	~	
	✓ Host Script Languages	~	
	☑ PowerShell Modules	~	
	☑ Python Modules	~	~
Car	Previous	Next	

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

	rehouse will live.	Added Targets
Connection Name REQUIRED		Added Targets
Data Warehouse		
A unique name that identifies this connection		
Data Source Name REQUIRED		
Snowflake (64-bit)	✓ 2	
User Name Password		
Target Storage Locations REQUIRED		
Target Storage Locations REQUIRED Existing schema (or database names depending on platfor + Add Location	m) for object storage	

#### Validate and press ADD.

Red Setup Wizard	×
Data Source Name REQUIRED	^
Snowflake (64-bit)	0
A Data Source Name created with the ODBC admin tool	
User Name	
Password	
•••••	
Target Storage Locations <b>REQUIRED</b> Existing schema (or database names depending on platform) for object storage	
RU_DEV_LOAD	×
RU_DEV_STAGE	x
RU_DEV_EDW	×
+ Add another Location Validate Validate Add	id
Cancel	Previous Next

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

>	Red Setup Wizard		×
A	Add Targets		^
Co	onfigure the connection where your data warehouse will live.	Added Targets	
		Data Warehouse Snowflake	×
	+		
	Add another target		
			~
Cance	el	Previous	Next

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

Red Setu	ıp Wizard		
Add ODBC Sources			
Add ODBC data sources now or click 'Next' to skip this s your sources later in RED	tep 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		
		_	
ncel		Previous	Next

Review the installation summary and press Install

Red Setup Wizard	
Summary	
Metadata Location	^
ODBC Data Source: edw_snowflakered10	
ODBC Database: (empty)	
ODBC User Name: postgres	
RDBMS Type: PostgreSQL	
Enablement Pack Directory "C:\Users\HP\Downloads\31-03	-2023postfinal
\RED10_TargetEP_Snowflake_beta-230331-0235"	
Database Functions Set	
Database Function Sets/Snowflake Function Set.xml (41 KB)	
Data Type Mappings Set	
Data Type Mappings/SNOWFLAKE from DB2.xml (3 KB)	
Data Type Mappings/SNOWFLAKE from File.xml (4 KB) Data Type Mappings/SNOWFLAKE from FIXED WIDTH FILE.xml	(1 KB)
Data Type Mappings/SNOWFLAKE from Oracle.xml (3 KB)	
Data Type Mappings/SNOWFLAKE from Other.xml (5 KB)	
Data Type Mappings/SNOWFLAKE from PostgreSQL.xml (3 KB)	
Data Type Mappings/SNOWFLAKE from Redshift.xml (3 KB)	
Data Type Mappings/SNOWFLAKE from SNOWFLAKE.xml (3 KB	)
Cancel	Previous In

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

ł

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 LOGIN	
		DATABASE	
WhereScape <sup>®</sup>	Data Source:	edw_snowflakered10 (64-bit)	•
	Logon Method:	DB User/Password	~
<b>RED</b>	Database Login ID:	postgres	
	Password:	****	
Version 10.0.0.0 by WhereScape, Inc. Copyright © 2023 Licensed to Data Entrega Partner License Expires 31 DEC 2023	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.

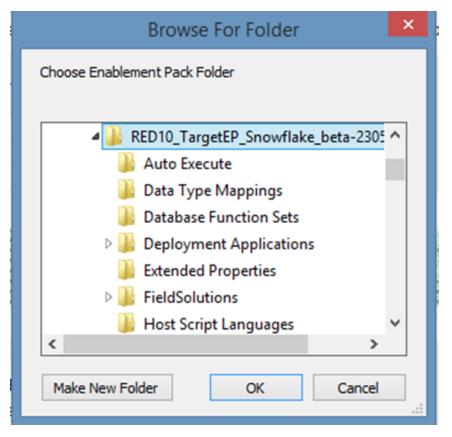
Post Installation Setup for Enablement Pack	×
<ul> <li>The installation process will set up and configure the enablement pack, install necessary Python and PowerShell modules and libraries.</li> <li>During installation you will be prompted to select the Enablement pack folder location and set either Python or PowerShell default template set. Additionally, you will have the option to choose the target location for deploying applications.</li> <li>Select the appropriate options when prompted to ensure a successful installation.</li> <li>Click 'OK' to continue with the installation process. Click 'Cancel' to cancel the installation process and redirect to RED.</li> </ul>	
OK Cancel	

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

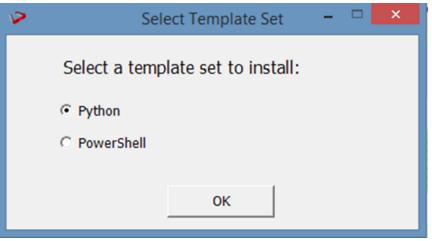
The user will be directed to the window below, where they have to select the target connection to be configured. Additionally, by deselecting the provided options, the user can choose not to install a particular option.

Target Connection – – ×
Select the target connection to configure
Data Warehouse
Select suitable boxes to install selected options
Options Configuration
Deployment Applications
✓ Python Libraries
✓ Powershell Modules
OK Cancel

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



Select the template set for installation either Python or PowerShell.



Press OK

The progress bar will show the post installation progress.

2	Post-Installation Steps	-	×
	050		_
Enablement Pack Setup	25%		
Setting extended prope	rties and windows connection		

User will have to choose the schema for the target setting that were provided. Three of such pop up will come for setting default target schema for Date Dimension, File Formats and Jobs.

Select Target Name X
Please select target name to install Date Dimension:
RU_DEV_LOAD
OK Cancel
😕 Select Target Name 😑 🗆 🗙
Select Target Name – □ × Please select target name to install File Formats:

😕 Select Target Name 😑 🗖 🗙
Please select target name to install Jobs:
RU_DEV_EDW
OK Cancel

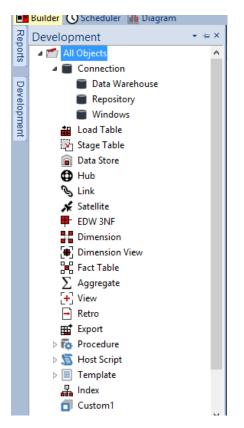
After selecting the target schema progress bar will show the progress for the installation and once it's completed, you will get the below pop up.

Post-Installation Steps
Installation Completed
ОК

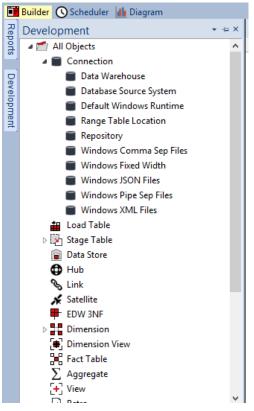
After pressing OK RED10 will open automatically.

Log off Exit User Settings	Backup - Validate -	Parameters Scrip Launche	I New New Project Object Project Group + Projects Search Groups + Projects Search	
Builder Scheduler In Di Development  All Objects  D Connection  Load Table	agram X			
🔀 Stage Table 🝙 Data Store <table-cell-rows> Hub</table-cell-rows>		Object	Results	*
Satellite		•	401 Success options:import The file "C/Users\HP\Downloads\31 -03-2023postfinal/RED10_TargetEP_S nowlifake beta-20031-0232/Options\	
Dimension Dimension View Fact Table		<ul> <li>wsl_post_i</li> <li>wsl_post_i</li> </ul>	Options.xml" was read and inserted into edw_snowflakered10	
∑ Aggregate [+] View → Retro		wsl_post_i	[edw.snowlikkerd10](6bh)         Application Deployment Complete           601 Success deployment.deployment deployment Complete         Application Deployment Complete           602 Success deployment.deployment deployment Complete         Application Deployment Complete	
Export  Export  For Procedure  Solution  Host Script		<ul> <li>wsl_post_i</li> </ul>	603 Success deployment:deploy Application Deployment Complete 604 Success deployment:deploy Application Deployment Complete 700 Success Steel/Context=SQL=Block (Execute SQL Deplos	
▷		•	700 Success Execute-SqL=block [Execute SqL Queres from OUBC connection to: edw_snowflakered10]	
Custom1 Custom2 Dobs		· · ·	Installer log saved to file: C-\Users\HP\AppData\Loca\Temp\WsEnbablementPackInstall_0331121510.log Post installation is complete please refresh the all object tree once to continue	

User will need to refresh the All Objects tree once.



After Refresh



### 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

5		Host Script wsl_p	oost_install_enablement_pac	:k ×
Properties	Name:	wsl_post_install_enableme	ent_pack	Type: Auto Execute - PowerShell : V
Notes	Purpose:	This script was inserted by	y WhereScape RED CLI	^
	Owner:	WhereScape RED CLI		Delete Lock
	Last Update By:			
	Connection Name:			<b>v</b>
	Edit Lock			
	Locked For Edit By:			
	Edit Lock Reason or Last Update:	New Script		Ŷ
	Timestamps		Last Update:	Compiled:
	Created 05-MAY	-2023 13:23:43	04-MAY-2023 13:23:43	
				OK Cancel Help

#### Important Upgrade Notes

If RED upgrade the repository option is chosen.

This enablement pack will overwrite any existing Source Enablement Pack UI Configs:

Connection UI Config	Load UI Config
Amazon S3	Load From Amazon S3
Azure Data Lake Storage Gen2	Load From Azure Data Lake Storage Gen2
Google Cloud	Load From Google Cloud

To ensure existing Source Enablement Pack connections and associated Load Tables continue to browse and load:

Go into UI Configuration Maintenance in RED prior to installing this Enablement Pack and rename the affected UI Configurations. While the updated Load Template will work with previous Source Enablement Pack's we recommend moving these previous versions of Load Tables to newly created Parser based connections following this install. The earlier versions of the Source Enablement Pack will be deprecated following this release.

# **Post Install Steps – Optional**

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

#### **Configure Connections**

There were Three connections added that will optionally require your attention:

- Connection: Data Warehouse ('Snowflake') This connection was setup as per parameters provided in Setup Wizard

   a. open it's properties and check extended properties tab, set it up for SNOWSQL\_ACCOUNT and SNOWSQL\_WAREHOUSE
- 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 'View->Toolbars->Script Launcher'

### **Source Enablement Pack Support**

Source Pack Name	Supported By Snowflake	Supported Features	Prerequisites
Amazon S3	Yes	Bulk load to Snowflake	For PowerShell Load : Install-Module -Name AWSPowerShell
Azure Data Lake Storage Gen2	Yes	Bulk load to Snowflake	Generate and add SAS token to Azure Data Lake Storage Gen2 connection properties: https://docs.snowflake.com/en/user-guide/data-load-azure-config. html#option-2-generating-a-sas-token
Google Cloud Storage	Yes	Bulk load to Snowflake	<pre>1. Create Storage Integration (Snowflake) CREATE OR REPLACE STORAGE INTEGRATION <storage_integration_name> TYPE = EXTERNAL_STAGE STORAGE_PROVIDER = GCS ENABLED = TRUE STORAGE_ALLOWED_LOCATIONS = (`<bucket_path>'); 2. Create Staging Area (Snowflake) USE DATABASE <database_name>; CREATE OR REPLACE STAGE <stage_name> url = `<bucket_path>' storage_integration = <storage_integration_name> 3. Get Storage Integration Desc (Snowflake) DESC STORAGE INTEGRATION <storage_integration_name> 4. Copy STORAGE_GCP_SERVICE_ACCOUNT and create IAM on Google Cloud Console with following permissions storage.objects.get storage.objects.list 5. Add extended properties to Google Cloud Storage Connection in RED GCS_STORAGE_INTEGRATIONGCS_STAGE_AREA_NAME 6. Please refer the official link for steps to download gsutil: https://cloud.google.com/storage/docs/gsutil_install</storage_integration_name></storage_integration_name></bucket_path></stage_name></database_name></bucket_path></storage_integration_name></pre>
Google Drive	Yes	Downloads file From Google Drive and uploads to Snowflake Table	None
Windows Parser	1. CSV 2. Excel 3. JSON 4. XML 5. AVRO 6. ORC 7. PARQUET	Load Template, Source Properties will have option to select parser type to load the files.	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	×
Enabler	nent Pack Failure	
	post_install_enablement_pack already exists as type i4-bit)". Cannot change it to type "Auto Execute -	
	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.