Install Guide - SetupWizard - Teradata

WhereScape Enablement Pack for Teradata - RED 10

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

Table of Contents

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 to house scheduler (Optional)
- Software Installations
    - WhereScape RED10.1.x.x with valid license key entered and EULA accepted
    - WhereScape Enablement Pack for target database version RED10.1.x.x
- 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 Target Database

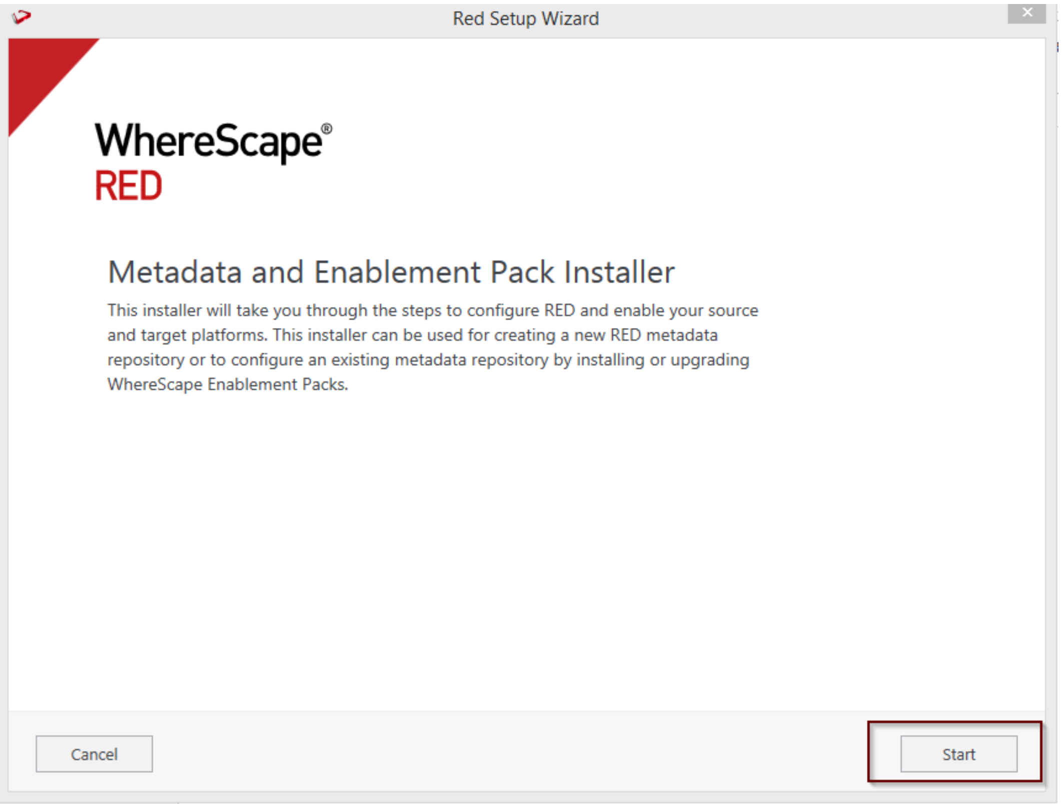
Before you begin the following prerequisites must be met:

- Access to an Teradata (Target Environment), with the following connectivity information :

    1. Server Name
    2. Database Name
    3. User Name
    4. Password
    5. At least one database available to use as a RED Data Warehouse Target with permissions CREATE, EXECUTE, DROP, SELECT PROCEDURE.
- Create Database and ODBC DSN Teradata ODBC driver (64-bit)
    1. Add ODBC DSN for Teradata Target Database
    2. The 'Return Output Parameters As ResultSet' option is to be checked in the driver options setting.
- Software installation
    - Install the necessary Teradata Tools and Utilities (TTU) (TBuild CLI Tool) as per Teradata's documentation.
- 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

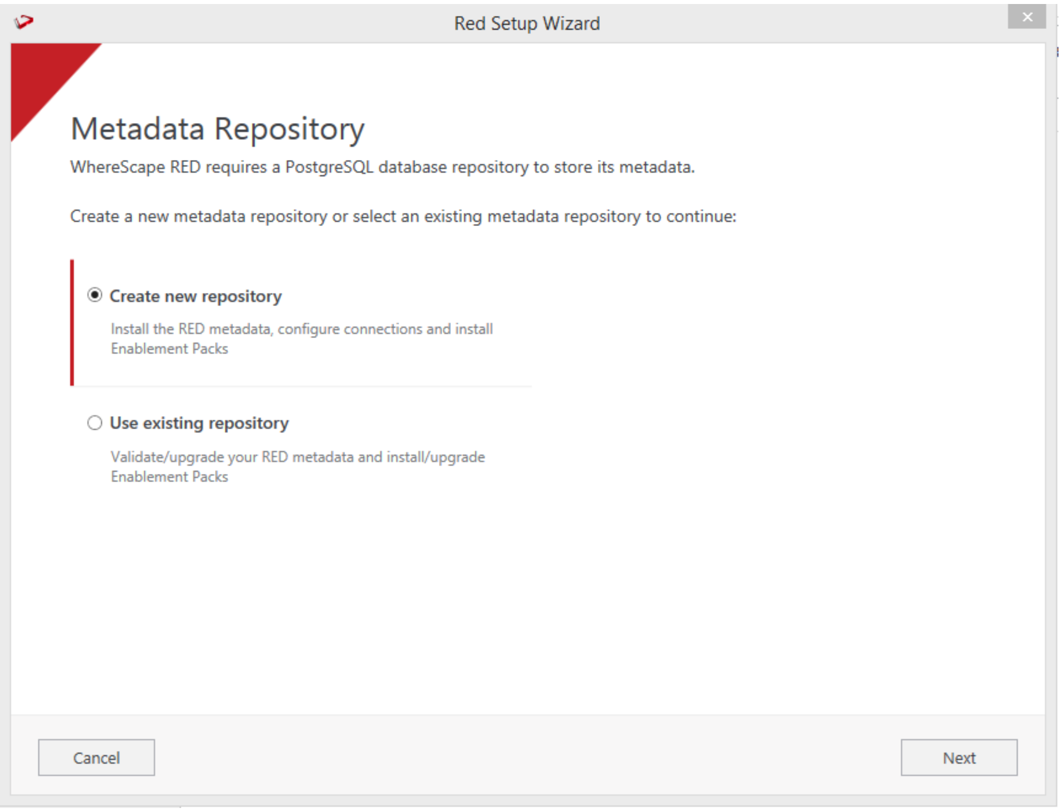
Run Setup Wizard as administrator



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.

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:

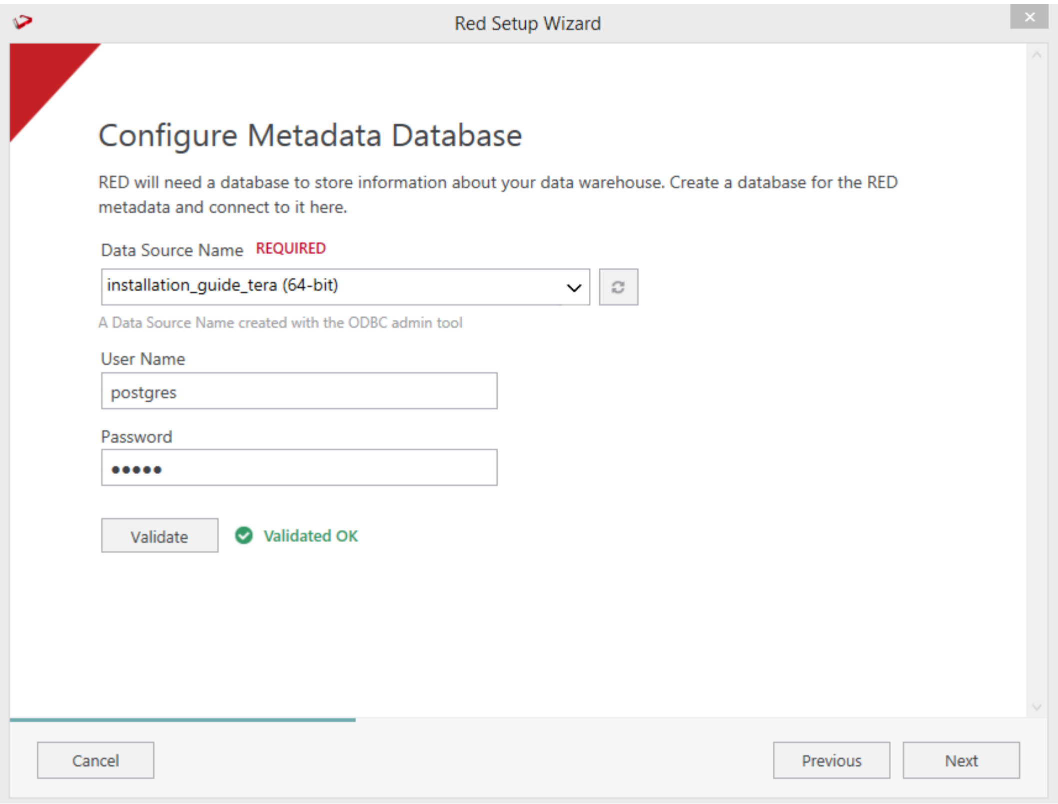
● **Create new repository**

Install the RED metadata, configure connections and install Enablement Packs

○ **Use existing repository**

Validate/upgrade your RED metadata and install/upgrade Enablement Packs

Select the created ODBC DSN, input login details 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 RED metadata and connect to it here.

Data Source Name REQUIRED

installation_guide_tera (64-bit)

A Data Source Name created with the ODBC admin tool

User Name

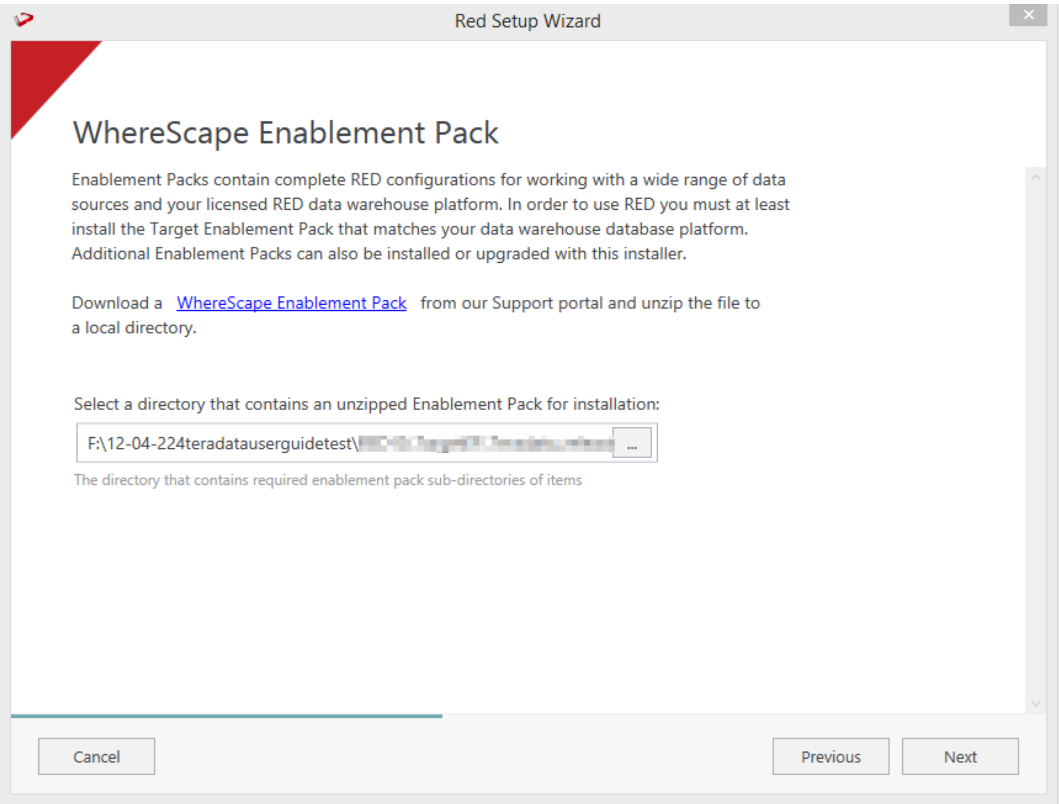
postgres

Password

•••••

Validated OK

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 least install the Target Enablement Pack that matches your data warehouse database platform. Additional Enablement Packs can also be installed or upgraded with this installer.

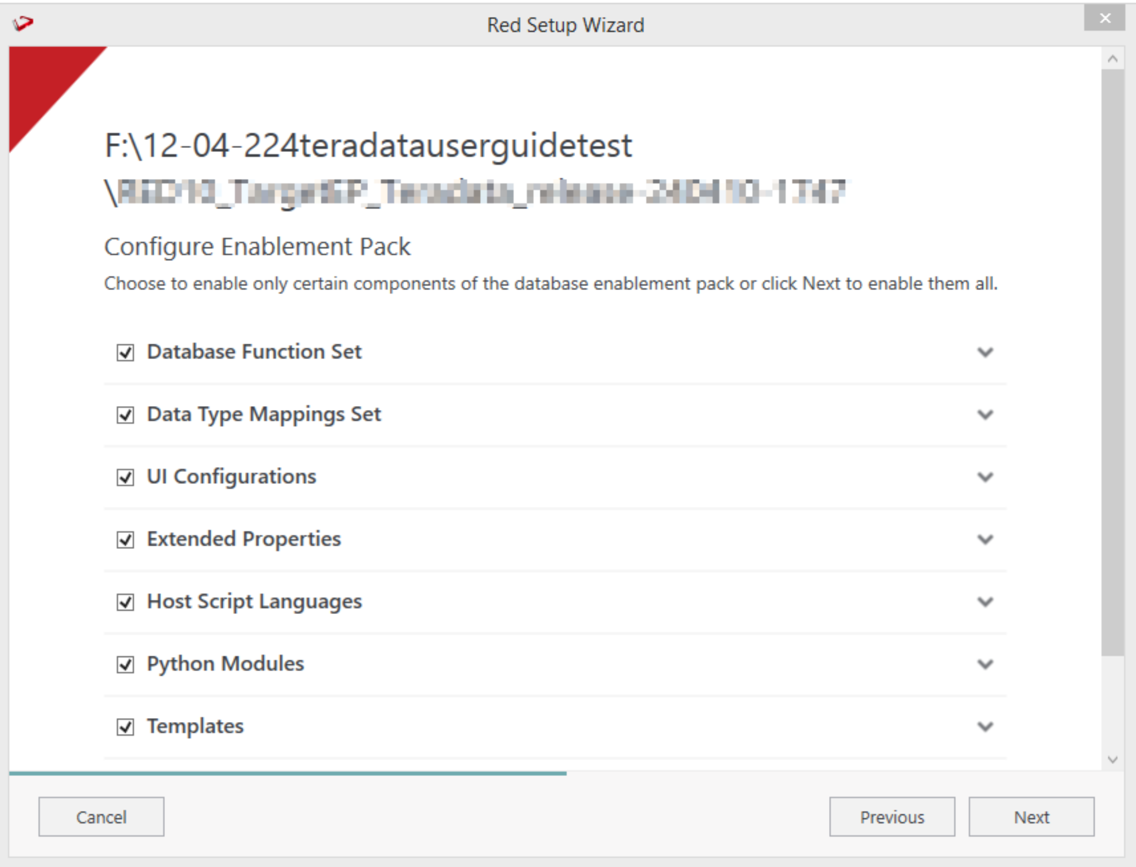
Download a WhereScape Enablement Pack from our Support portal and unzip the file to a local directory.

Select a directory that contains an unzipped Enablement Pack for installation:

F:\12-04-224teradatauserguidetest\[redacted] ...

The directory that contains required enablement pack sub-directories of items

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



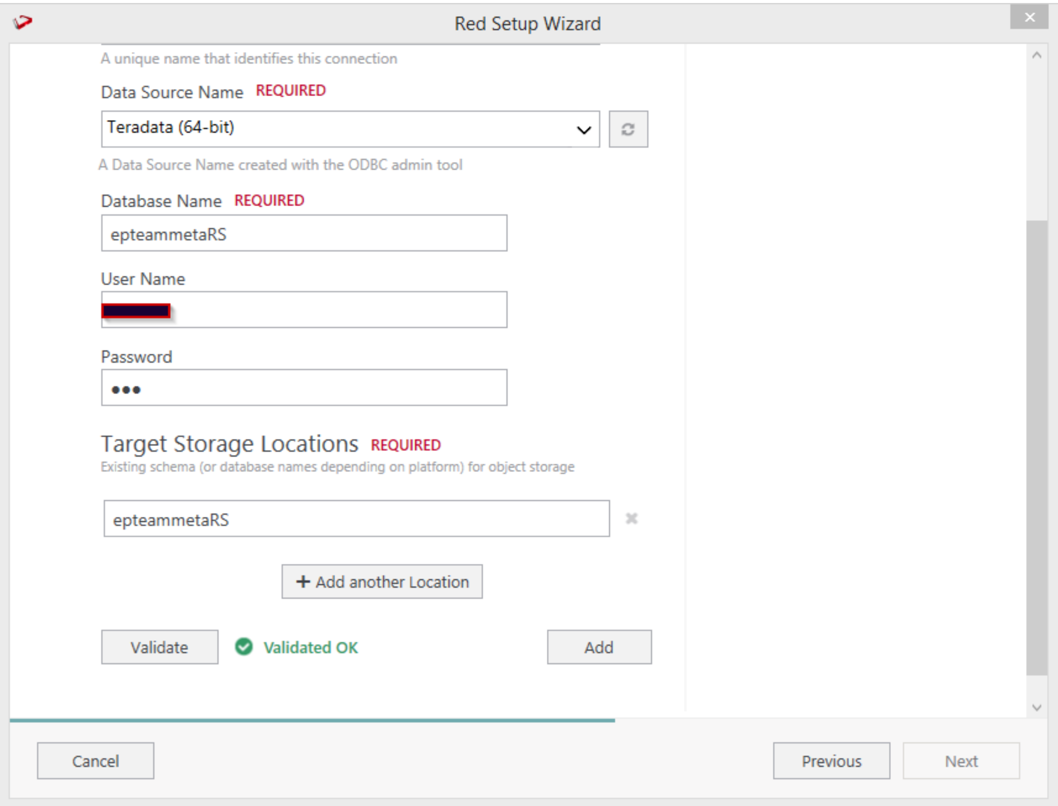
F:\12-04-224teradatauserguidetest\[redacted]

Configure Enablement Pack

Choose to enable only certain components of the database enablement pack or click Next to enable them all.

- ☑ Database Function Set
- ☑ Data Type Mappings Set
- ☑ UI Configurations
- ☑ Extended Properties
- ☑ Host Script Languages
- ☑ Python Modules
- ☑ Templates

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



A unique name that identifies this connection

Data Source Name REQUIRED

Teradata (64-bit)

A Data Source Name created with the ODBC admin tool

Database Name REQUIRED

epteammetaRS

User Name

[redacted]

Password

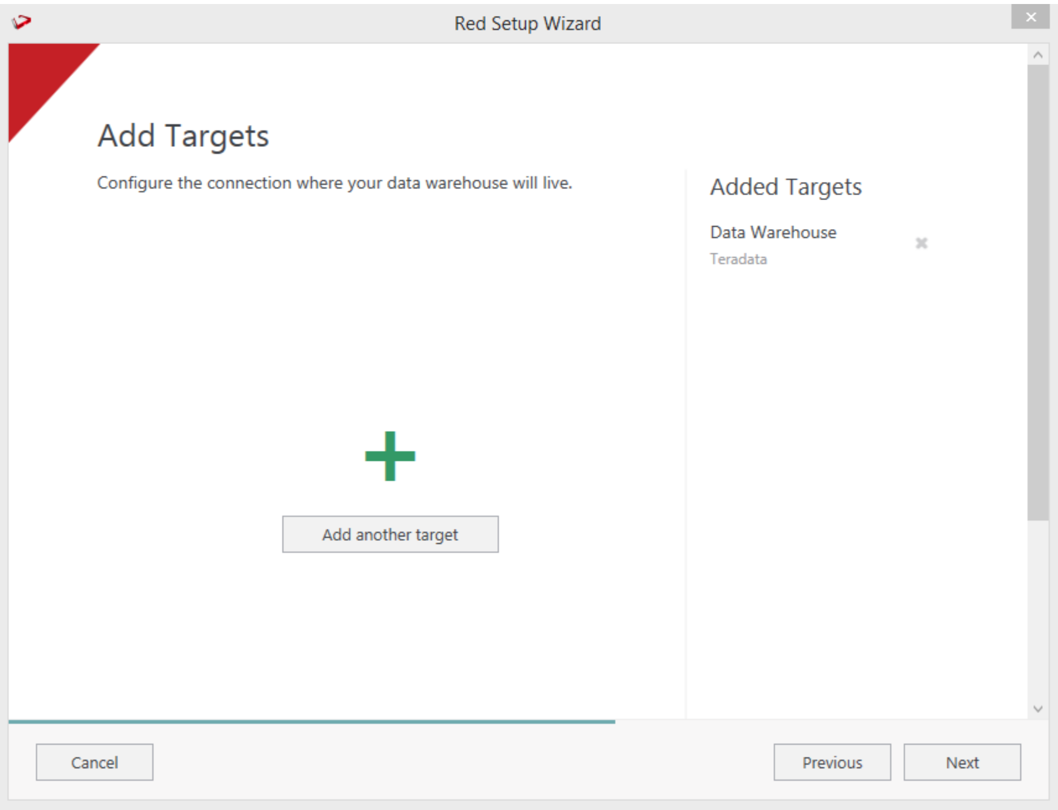
●●●

Target Storage Locations REQUIRED

Existing schema (or database names depending on platform) for object storage

epteammetaRS

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



Add Targets

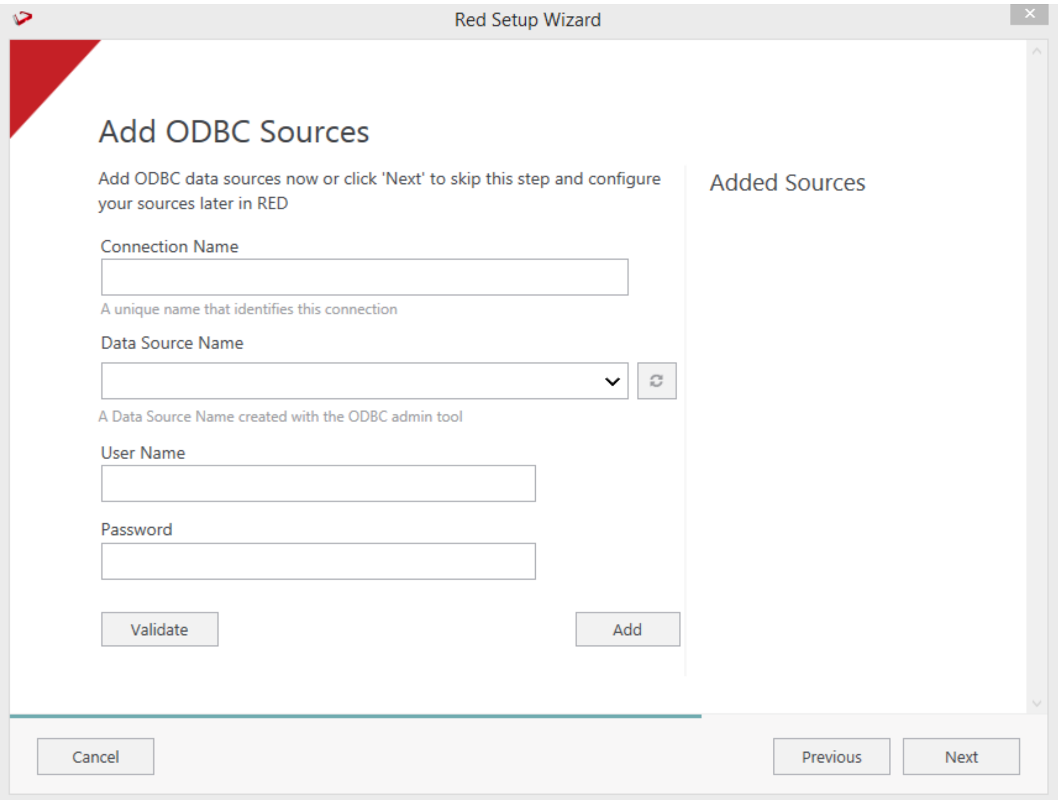
Configure the connection where your data warehouse will live.

Added Targets

Data Warehouse

Teradata

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



Red Setup Wizard

Add ODBC Sources

Add ODBC data sources now or click 'Next' to skip this step and configure your sources later in RED

Connection Name

A unique name that identifies this connection

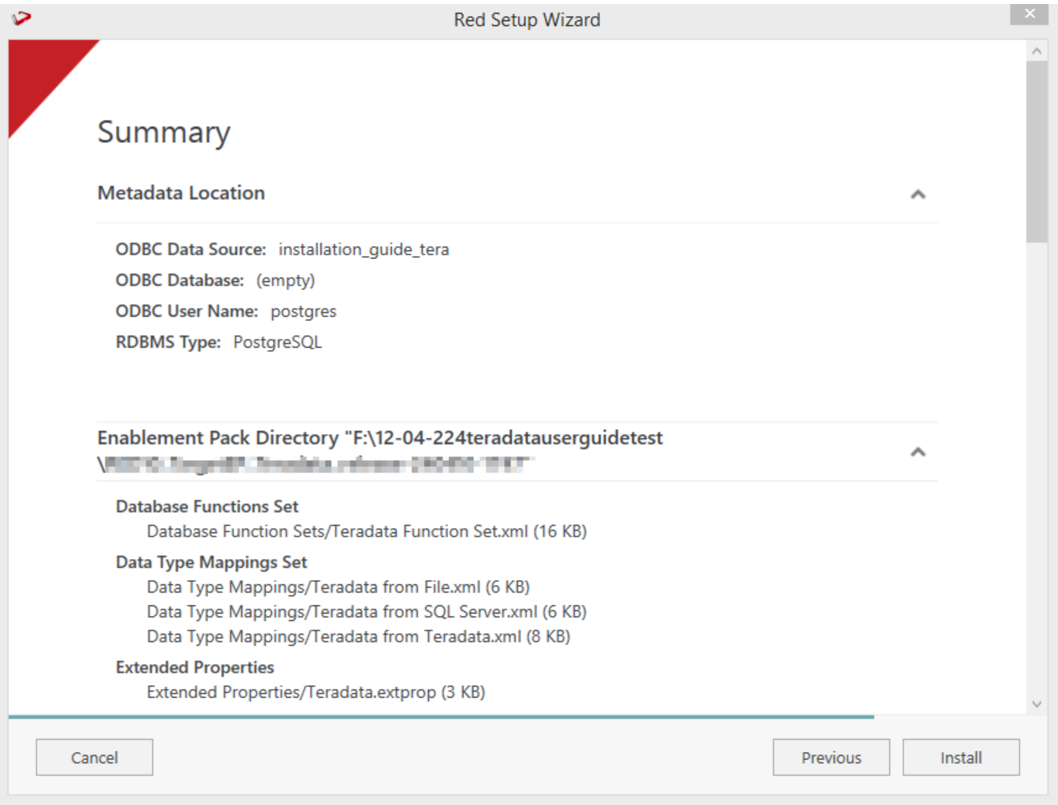
Data Source Name

A Data Source Name created with the ODBC admin tool

User Name

Password

Review the installation summary and click Install



Red Setup Wizard

Summary

Metadata Location

ODBC Data Source: installation_guide_tera
ODBC Database: (empty)
ODBC User Name: postgres
RDBMS Type: PostgreSQL

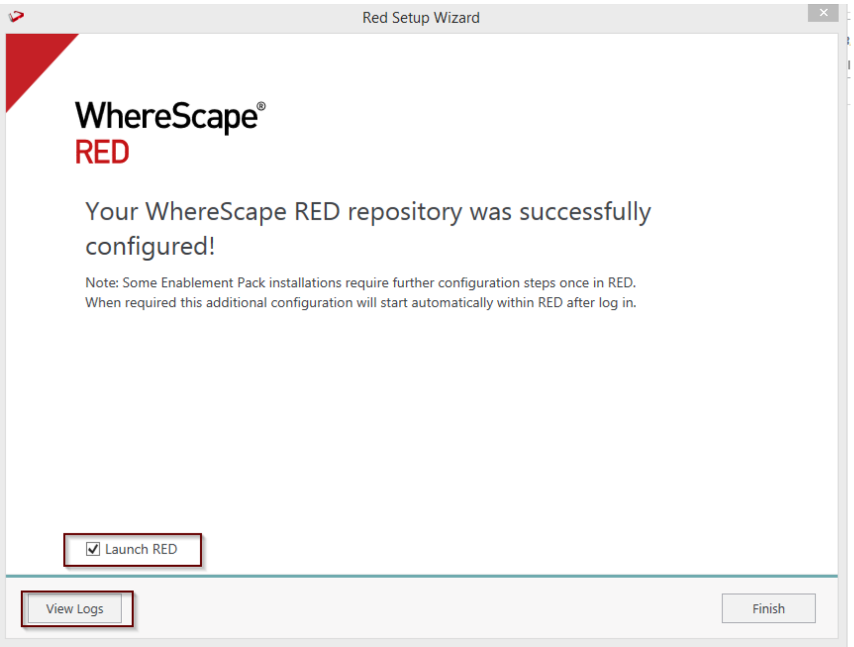
Enablement Pack Directory "F:\12-04-224teradatauserguidetest\[redacted]

Database Functions Set
Database Function Sets/Teradata Function Set.xml (16 KB)

Data Type Mappings Set
Data Type Mappings/Teradata from File.xml (6 KB)
Data Type Mappings/Teradata from SQL Server.xml (6 KB)
Data Type Mappings/Teradata from Teradata.xml (8 KB)

Extended Properties
Extended Properties/Teradata.extprop (3 KB)

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

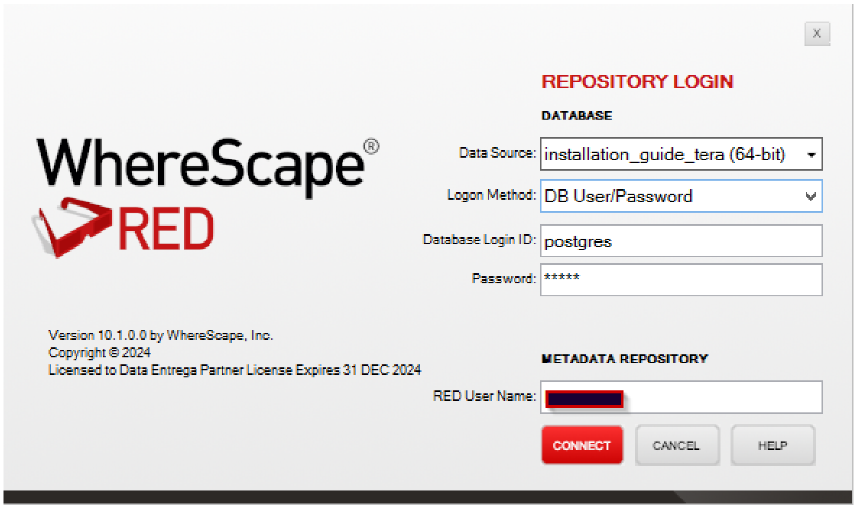


Your WhereScape RED repository was successfully configured!

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

Login to WhereScape RED.



REPOSITORY LOGIN

DATABASE

Data Source: installation_guide_tera (64-bit)

Logon Method: DB User/Password

Database Login ID: postgres

Password: *****

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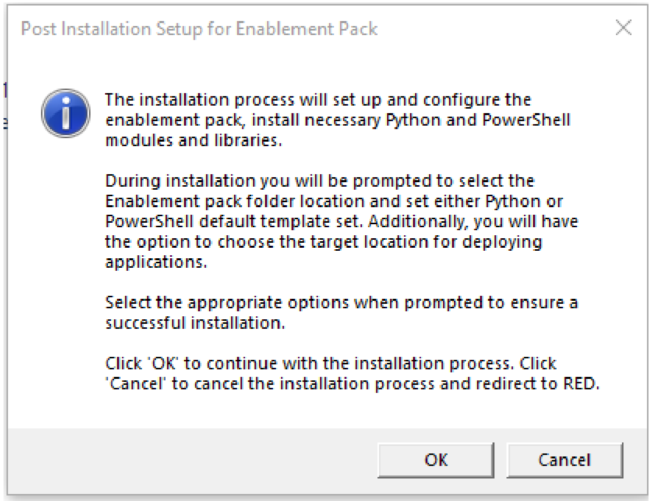
METADATA REPOSITORY

RED User Name: [redacted]

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

The installation process will set up and configure the enablement pack, install necessary Python and PowerShell modules and libraries.

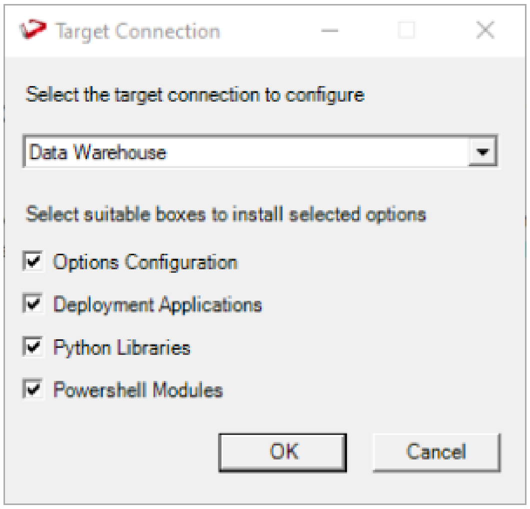
During installation you will be prompted to select the Enablement pack folder location and set either Python or PowerShell default template set. Additionally, you will have the option to choose the target location for deploying applications.

Select the appropriate options when prompted to ensure a successful installation.

Click 'OK' to continue with the installation process. Click 'Cancel' to cancel the installation process and redirect to RED.

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

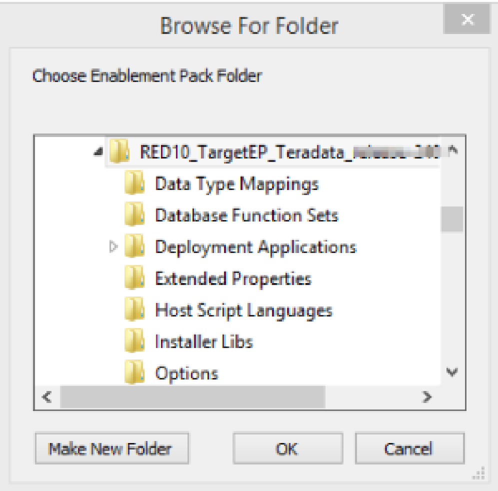
☑ Options Configuration

☑ Deployment Applications

☑ Python Libraries

☑ Powershell Modules

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

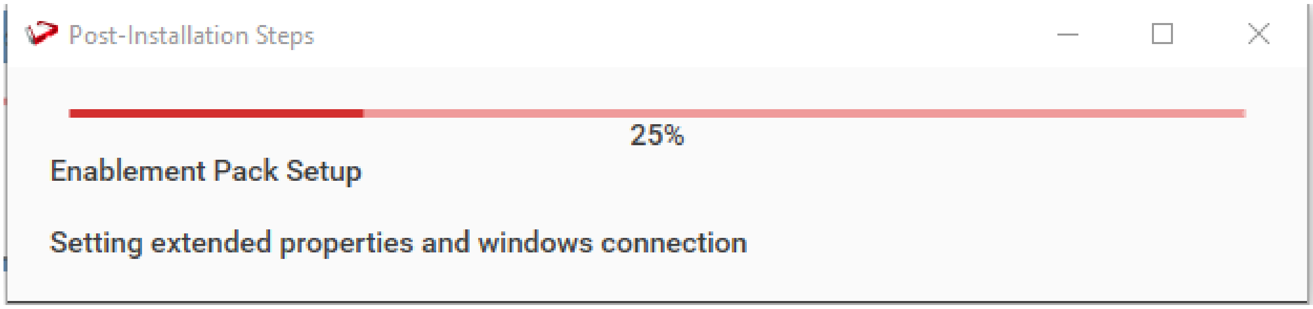

Browse For Folder

Choose Enablement Pack Folder

- RED10_TargetEP_Teradata_[redacted]
  - Data Type Mappings
  - Database Function Sets
  - Deployment Applications
  - Extended Properties
  - Host Script Languages
  - Installer Libs
  - Options

Press OK

The progress bar will show the post installation progress.

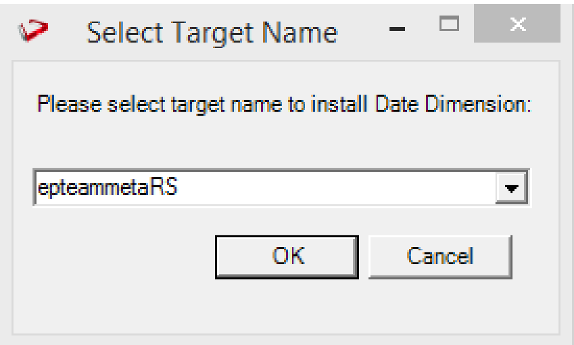

Post-Installation Steps

25%

Enablement Pack Setup

Setting extended properties and windows connection

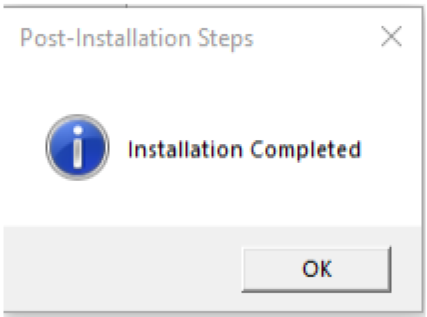
User will have to choose the database for the target setting that were provided. One pop up will come for setting default target for Date Dimension.



Please select target name to install Date Dimension:

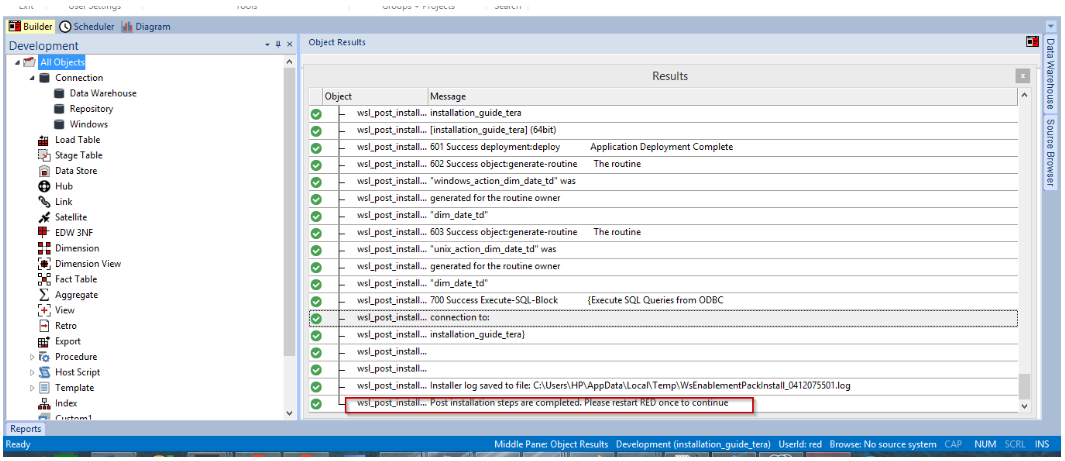
epteammetaRS

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



Installation Completed

After pressing OK RED10 will open automatically.

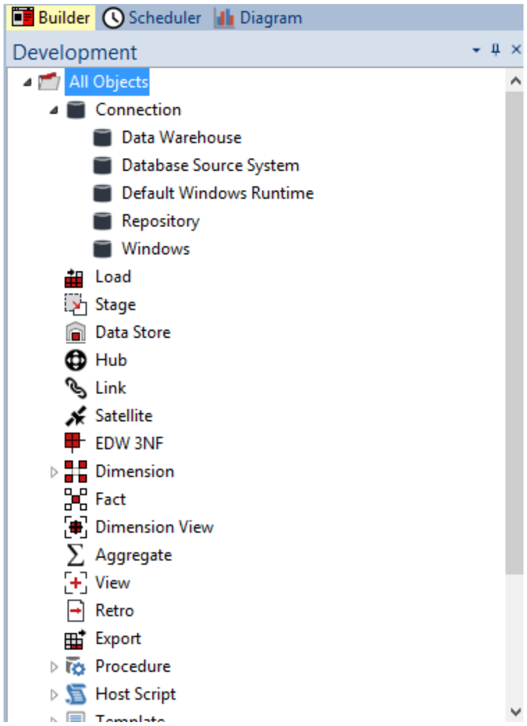


Results

```
Object               Message
wsl_post_install...  installation_guide_tera
wsl_post_install...  [installation_guide_tera] (64bit)
wsl_post_install...  601 Success deployment:deploy        Application Deployment Complete
wsl_post_install...  602 Success object:generate-routine    The routine
wsl_post_install...  "windows_action_dim_date_td" was
wsl_post_install...  generated for the routine owner
wsl_post_install...  "dim_date_td"
wsl_post_install...  603 Success object:generate-routine    The routine
wsl_post_install...  "unix_action_dim_date_td" was
wsl_post_install...  generated for the routine owner
wsl_post_install...  "dim_date_td"
wsl_post_install...  700 Success Execute-SQL-Block        {Execute SQL Queries from ODBC
wsl_post_install...  connection to:
wsl_post_install...  installation_guide_tera}
wsl_post_install...
wsl_post_install...
wsl_post_install...  Installer log saved to file: C:\Users\HP\AppData\Local\Temp\WsEnablementPackInstall_0412075501.log
wsl_post_install...  Post installation steps are completed. Please restart RED once to continue
```

Ready   Middle Pane: Object Results   Development (installation_guide_tera)   UserId: red   Browse: No source system   CAP   NUM   SCRL   INS

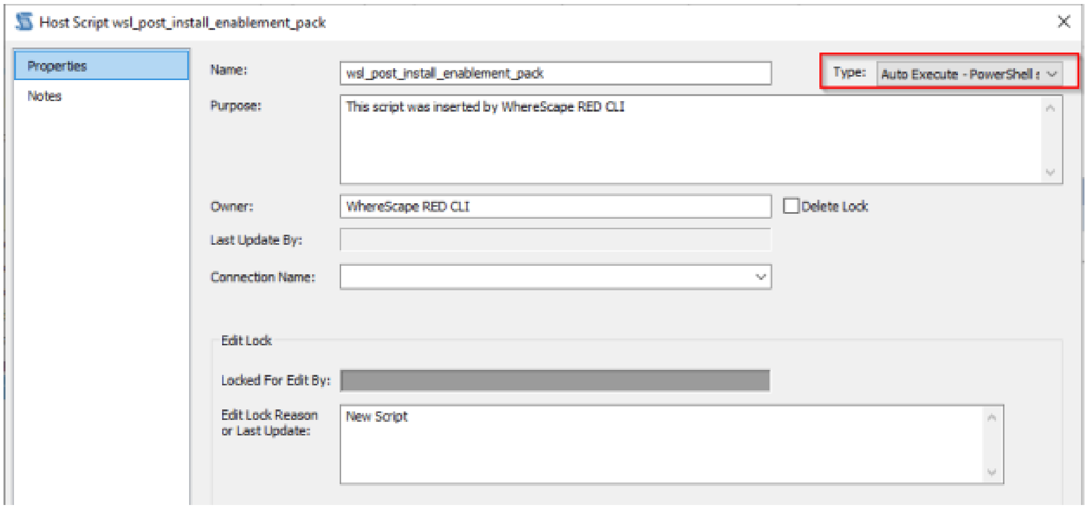
User will need to restart RED once.



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



Name: wsl_post_install_enablement_pack

Type: Auto Execute - PowerShell :

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

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.

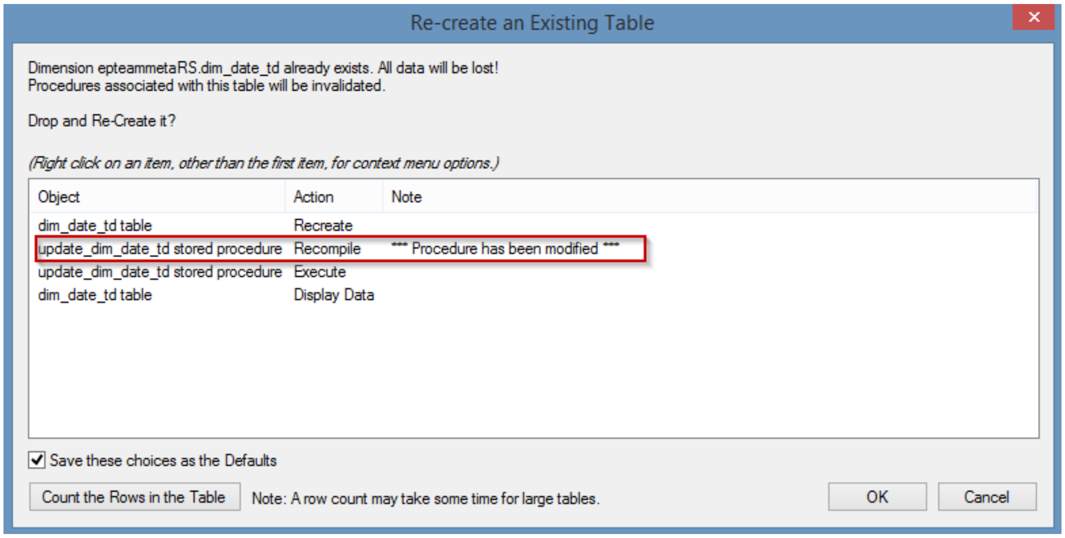
Post Install Steps – Optional

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

Configure Connections

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

1. Connection: 'Database Source System' - this connection was setup as an example source connection,
   - open it's properties and set it up for a source DB in your environment
   - or you can remove it if not required
2. Execute Update Procedure for dim_date_td to **Initialize Date Dimension for Target**



Dimension epteammetaRS.dim_date_td already exists. All data will be lost!
Procedures associated with this table will be invalidated.

Drop and Re-Create it?

(Right click on an item, other than the first item, for context menu options.)

Object	Action	Note
dim_date_td table	Recreate	
update_dim_date_td stored procedure	Recompile	*** Procedure has been modified ***
update_dim_date_td stored procedure	Execute	
dim_date_td table	Display Data	

☑ Save these choices as the Defaults

Note: A row count may take some time for large tables.

NOTE: Please avoid regenerating the procedure update_dim_date_td as it is a custom procedure.

Source Enablement Pack Support

Source Pack Name	Supported By Teradata	Supported Features	Prerequisites
Amazon S3	Yes	Teradata Access Module for S3 (CSV)	Create a credential file by following the documentation linked below, and paste the directory location of the credential file into the 'Amazon S3 Config Directory' Extended Property: https://docs.teradata.com/r/Enterprise_IntelliFlex_Lake_VMware/Teradata-Tools-and-Utilities-Access-Module-Reference-20.00/Teradata-Access-Module-for-S3/The-config-and-credentials-Files

Azure Data Lake Storage Gen2	Yes	Teradata Access Module for Azure Blob (CSV)	Create a credential file by following the documentation linked below, and paste the directory location of the credential file into the 'Azure Config Directory' Extended Property: https://docs.teradata.com/r/Enterprise_IntelliFlex_Lake_VMware/Teradata-Tools-and-Utilities-Access-Module-Reference-20.00/Teradata-Access-Module-for-Azure-Blob/The-Credentials-File
Google Cloud Storage	Yes	Teradata TPT	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 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>

Restarting failed scripts

Some of the setup scripts will track each step and output the step number when there is a failure. To restart from the failed step (or to skip the step) provide the parameter "-startAtStep <step number>" to the script.

Example:

```
Powershell -ExecutionPolicy Bypass -File .\<script_file_name.ps1> -startAtStep 123
```

Tip: to avoid having to provide all the parameters again you can copy the full command line with parameters from the first "INFO" message from the beginning of the console output.

Python requirements for offline install

Additionally to the base Python installation being required, the WhereScape Python Template set also requires certain additional Python libraries. The install scripts uses the PIP (package manager) to download these libraries, however for offline installs you will need to install the required libraries yourself.

Required Python libraries/add-ons:

- pywin32-ctypes
- python-tds
- pywin32
- glob2
- gzip-reader
- regex
- pyodbc

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.