

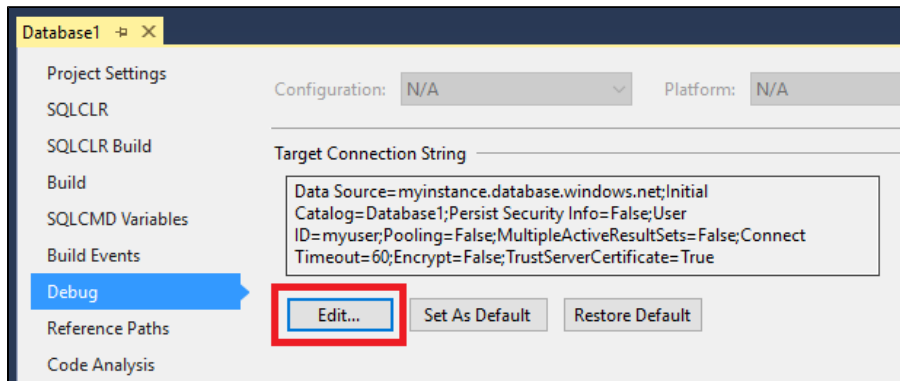
# Target and shadow databases

ReadyRoll maintains two databases:

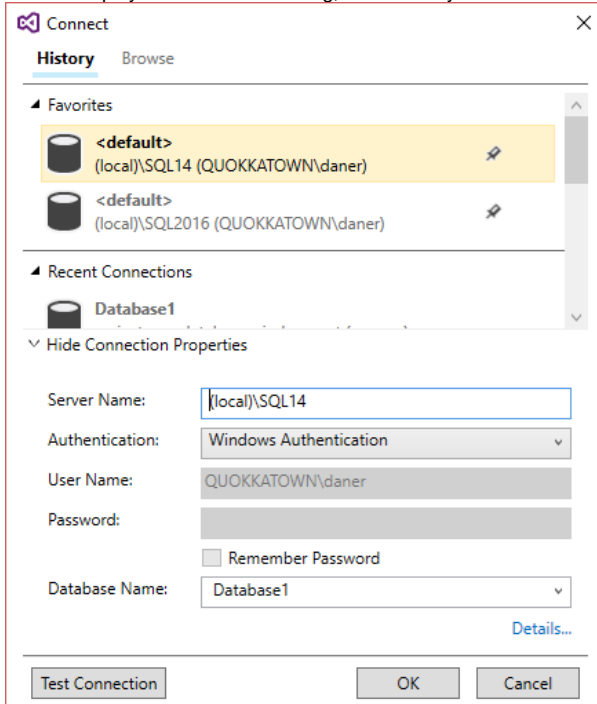
- **Target database**  
This is the development database or sandbox that you use for debugging and to edit schema objects (e.g. using SSMS). When you deploy, ReadyRoll executes your migration scripts against this database to upgrade it. You shouldn't drop the target database from your SQL Server instance.
- **Shadow database**  
This is an exact copy of your database schema created automatically from your project scripts (001.sql, 002.sql, 003.sql, etc). It's created every time you use the ReadyRoll tool-window to view pending changes or import. The shadow database is used by the SQL Compare engine (that powers ReadyRoll) as the base from which to generate a new migration script. It is safe to remove the database from your development instance at any time, in fact ReadyRoll will automatically drop the shadow db whenever you [Clean or Rebuild your project](#).  
*For details of how the shadow databases is used during the verification stage, see [script verification](#).*

## Changing the Target database connection

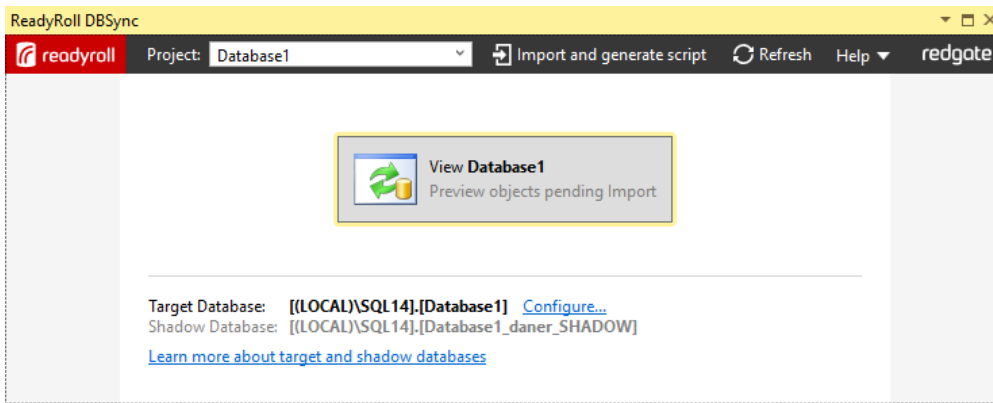
The *Target Connection string* can be set by clicking the **Edit** button within the *Debug* tab of the project designer.



This will display the connection dialog, from which you can either browse to the desired server or enter the connection details:



Build your solution to update the connection within the **ReadyRoll** tool-window.



## Changing the Shadow database connection

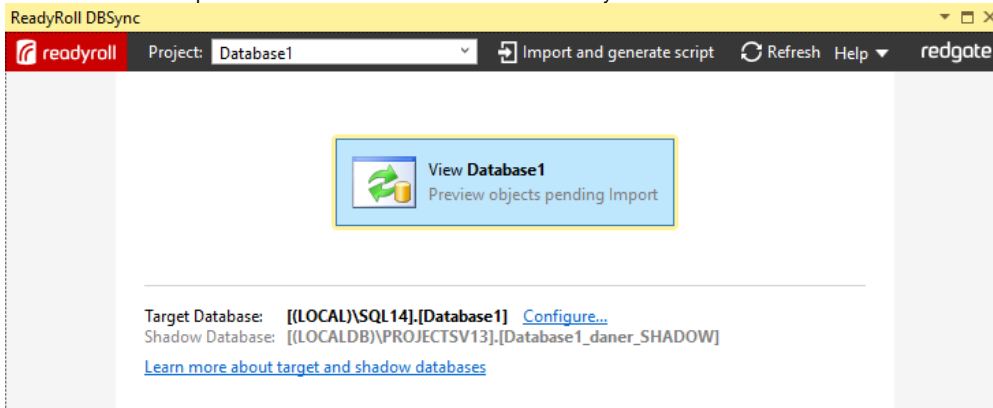
By default, the Shadow database will be deployed to the same server that you've chosen to deploy the Target database to.

If you would prefer not to deploy the Shadow database to your Target server, you check the following option on the Debug tab: *Always use default connection string for Shadow database*.



This will cause the Shadow database to be deployed to the connection displayed in the *Default Connection String* box, typically *(localdb) ProjectsV13*.

Build the solution to update the Shadow connection within the ReadyRoll tool-window.



## Setting the Shadow connection string

To deploy the Shadow to a different server, this can be done by adjusting the default connection string in the project.

Firstly, under the *Target Connection String*, click **Edit** to display the connection dialog. Specify the server that you would like to deploy the Shadow database to:

**Connect**

History Browse

- <default> (localdb)\MyShadowServer (QUOKKATOWN\daner)
- Database1 myinstance.database.windows.net (myuser)
- <default> (localdb)\ProjectsV13 (QUOKKATOWN\daner)

Hide Connection Properties

Server Name: (localdb)\MyShadowServer

Authentication: Windows Authentication

User Name: QUOKKATOWN\daner

Password:

☐ Remember Password

Database Name: <default>

Details...

Test Connection OK Cancel

Then, click *Set As Default* to set this connection as the *Default Connection String*.

Target Connection String

Data Source=(localdb)\MyShadowServer;Initial Catalog=Database1;Integrated Security=True;Persist Security Info=False;Pooling=False;MultipleActiveResultSets=False;Connect Timeout=60;Encrypt=False;TrustServerCertificate=True

Edit... Set As Default Restore Default

Default Connection String

Data Source=(localdb)\MyShadowServer;Initial Catalog=Database1;Integrated Security=True;Persist Security Info=False;Pooling=False;MultipleActiveResultSets=False;Connect Timeout=60;Encrypt=False;TrustServerCertificate=True

Clear



The Default Connection String is a setting that is included in your .sqlproj file. This means that this setting will be shared with others when you check the project into source control, so the connection details you provide should be valid for everyone in your team.

Click **Edit...** once again in order to set the *Target Connection String* back to its previous setting:

**Connect**

History Browse

Favorites

- <default> (local)\SQL14 (QUOKKATOWN\daner)
- <default> (local)\SQL2016 (QUOKKATOWN\daner)

Recent Connections

- Database1

Hide Connection Properties

Server Name: (local)\SQL14

Authentication: Windows Authentication

User Name: QUOKKATOWN\daner

Password:

☐ Remember Password

Database Name: Database1

Details...

Test Connection OK Cancel

Ensure that the following option is checked: *Always use default connection string for Shadow database.*

Build the solution to update the connection details within the ReadyRoll tool-window.

ReadyRoll DBSync

Project: Database1

Import and generate script Refresh Help redgate

**View Database1**  
Preview objects pending Import

Target Database: [(LOCAL)\SQL14].[Database1] [Configure...](#)

Shadow Database: [(LOCALDB)\MYSHADOWSERVER].[Database1\_daner\_SHADOW]

[Learn more about target and shadow databases](#)

**i** When you next Import changes into your project, the Shadow database will be deployed to the specified server. Feel free to drop any databases created by ReadyRoll on any of your other servers (this can be identified by the `_SHADOW` database name suffix).