# QGrip-UI
# Application Menu

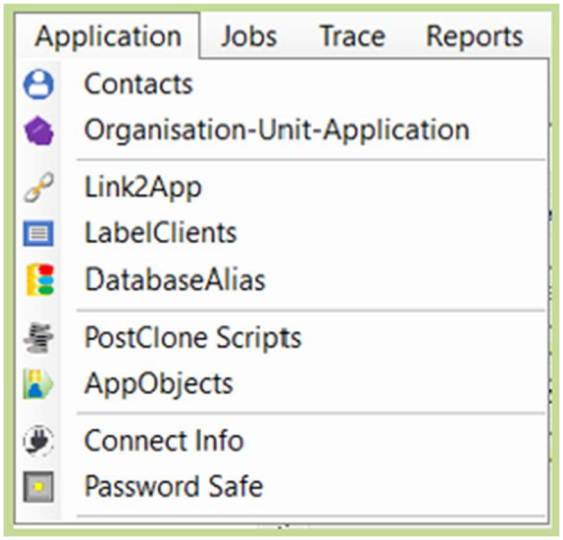
GRIP ON SQL

2024-04-15

Contents

# 1 Introduction

This document describes all items in the Application Menu of the QGrip-UI.



# 2 Contacts

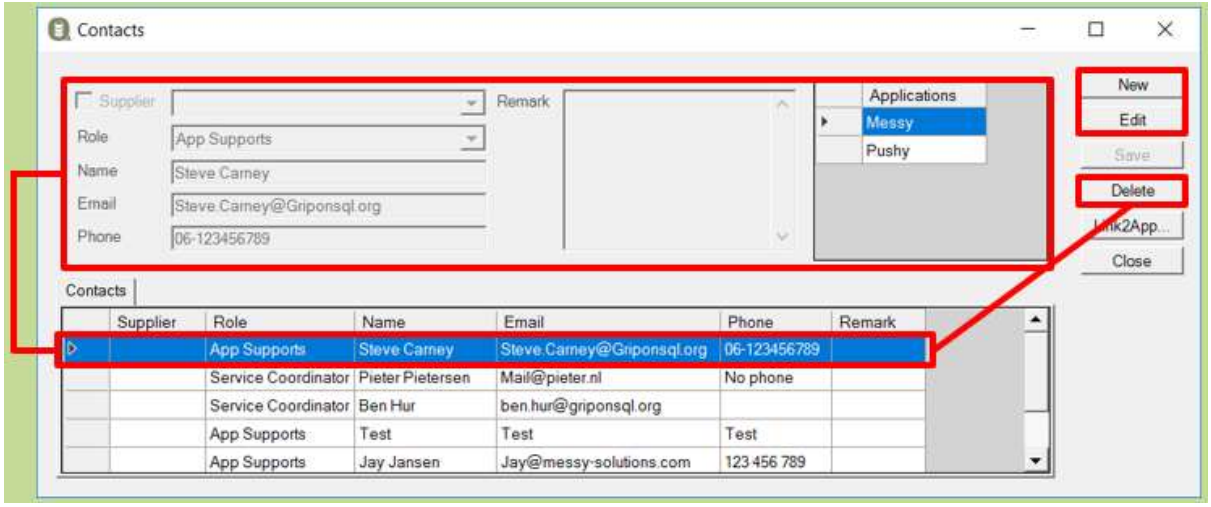
| Required Authorisation | Menu |
|---|---|
| Edit Organisation/Unit/Application | Application -> Contacts |

**Recommended documentation**

| Doc-Tab | Title | Section |
|---|---|---|
| Application | Contacts & Suppliers | |

Contacts and/or Suppliers can also be edited from the Application edit window.

**Edit Contacts:**

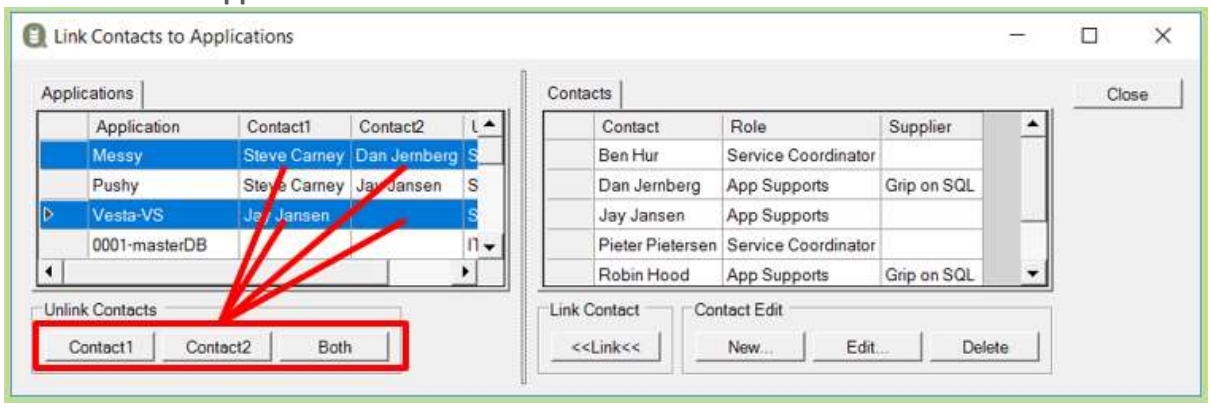



**Mandatory & Unique:** Name

**New:** Press New to enter edit mode to add a new Contact.
**Edit:** Press Edit to enter edit mode to modify the current Contact.
**Save:** Press Save to save changes to current Contact. The edit mode will be existed.
**Cancel:** Press Cancel to exit edit mode without saving changes.
**Delete:** Select rows in the Contacts tab and press Delete to delete contacts.
**Link2App:** Press Link2App to open 'Link Contacts to Application' window, see below.

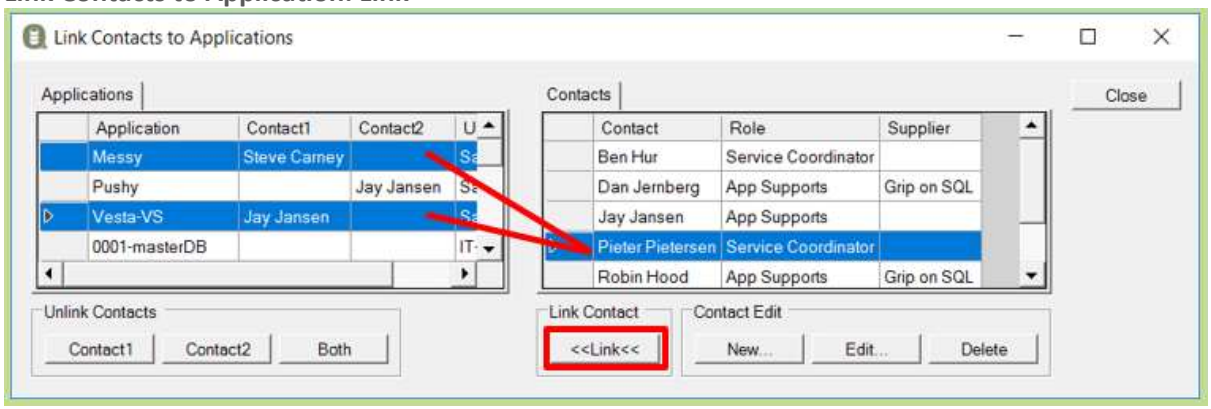

Right Click on Supplier/Role Drop-Down to Add, Rename or Delete occurrence. When deleted, the occurrence will be deleted everywhere where it is being used.

### Link Contacts to Application: Unlink



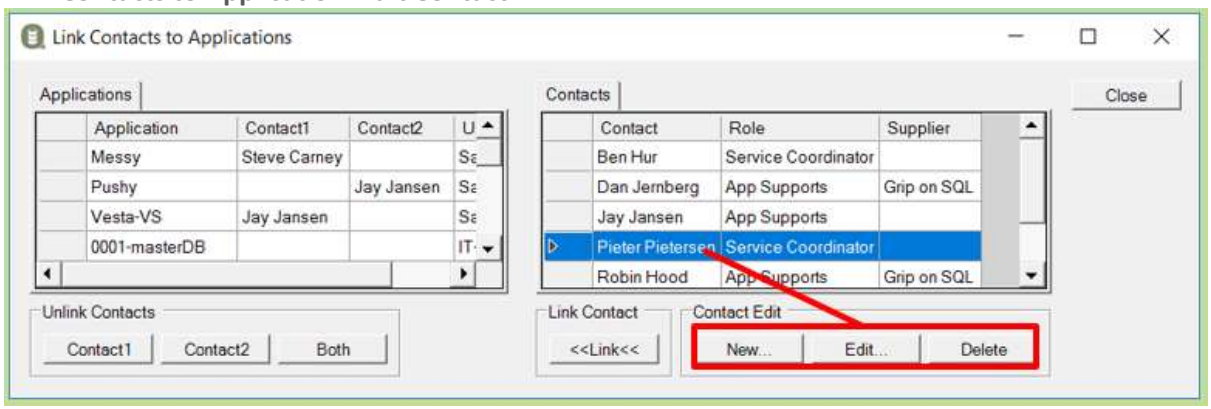

To Unlink (clear) the contacts of Applications, select the application rows and use the buttons:
**Contact1:** Clears Contact1
**Contact2:** Clears Contact2
**Both:** Clears Contact1 and Contact2

### Link Contacts to Application: Link




To Link (add contact) to one or more applications, select the Application rows and the Contact row and press **<<Link<<**. Contact1 and/or Contact2 must be empty, otherwise the action will fail.

### Link Contacts to Application: Edit Contact




To quickly edit, delete or add new contact, use the Contact Edit buttons. Edit and Delete acts on the selected Contact row.

# 3 Organisation-Unit-Application

| Required Authorisation | Menu |
|---|---|
| Edit Organisation/Unit/Application | Application -> Organisation-Unit-Application |

**Recommended documentation**

| Doc-Tab | Title | Section |
|---|---|---|
| Basics | Substitution & Naming conventions | |
| Application | Contacts & Suppliers | |
| Application | Organisation-Unit-Application | |
| Application | Default DB Host & Environments | |

In the Organisations window, you can add new Organisations, Units and Applications to QGrip or edit/delete existing ones.

## 3.1 Organisation

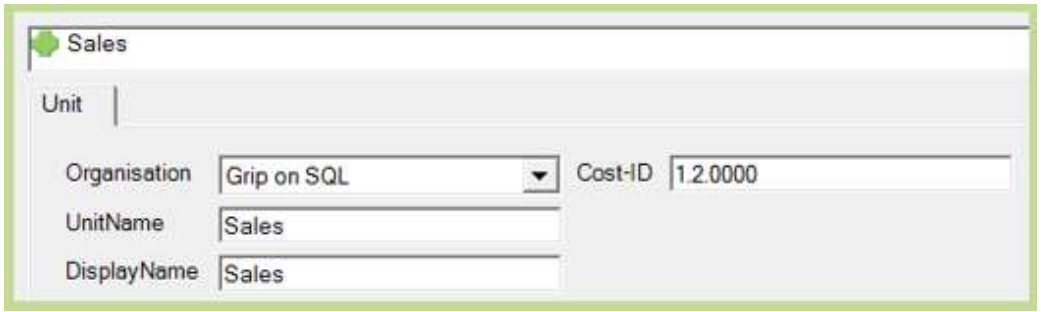

When adding or editing an Organisation you need to enter:

| Field | Description |
|---|---|
| Organisation (*) | The name of the Organisation. |
| DisplayName (*) | The name shown in QGrip, preferably same as Organisation. |
| Cost-ID | Identification to be used in Charges, Split Costs. |

(*) Unique

Deleting an Organisation with underlaying Units is not possible.

## 3.2 Unit




When adding or editing a Unit you need to enter:

| Field | Description |
|---|---|
| Organisation | Owning Organisation. |

| | |
|---|---|
| Unit Name (*) | The name of the Unit. |
| DisplayName (*) | The name shown in QGrip, preferably same as Unit Name. |
| Cost-ID | Identification to be used in Charges, Split Costs. |

(*) Unique

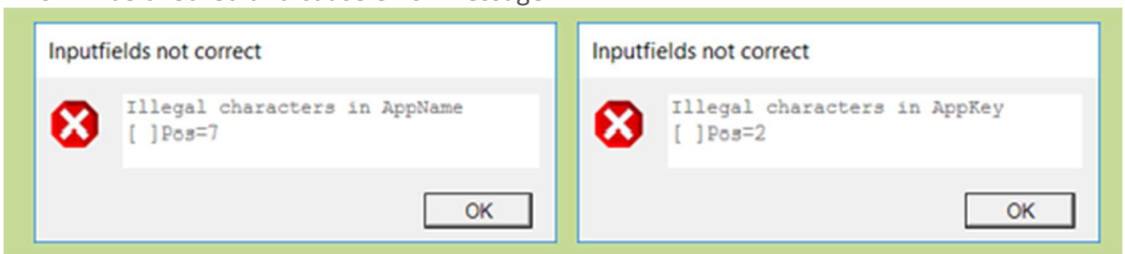
Deleting a Unit owning Applications is not possible.

## 3.3 Application


When adding or editing an application you need to enter:

| Field | Description |
|---|---|
| Unit | Owning Unit. |
| App Name (*) (***) | The technical name of the Application. |
| App Key (*) (***) | The Key Identifier used for the Application. |
| DisplayName (*) | The name shown in QGrip, preferably a combination of AppName and AppKey. |
| IsService | Check IsService if the application is a service. |
| IsClusterAware | Check IsClusterAware if application is Failover proof in a SQL AlwaysOn environment. |
| Cost-ID (**) | Identification to be used in Charges, Split Costs. |
| CMDB-ID (**) | The identifier used for application in organisation CMDB. |
| Supplier | If applicable select, right-click to Add/Rename/Delete. |
| Contact (1&2) | If applicable select, right-click to Add/Edit/Delete. |

(*) Unique
(**) By default, filled with AppKey.
(***) AppName + AppKey should be without spaces and special characters.
This will be checked and cause error message.




Deleting an Application linked to (Infra) objects is not possible.

## 3.4 Default DB Host and Environments

Default DB Hosts are necessary when you want to create new Databases and/or Logins (App Objects) for an application. Initially you do not need to enter them. During the Link2App process the default DB Hosts and environments will be automatically added whenever possible.

**Default DB Host**

1. Instance (Stand Alone)
2. Listener (Always on Cluster)

When defining Default DB Hosts, you can do it on all levels:

1. Organisation
2. Unit
3. Application

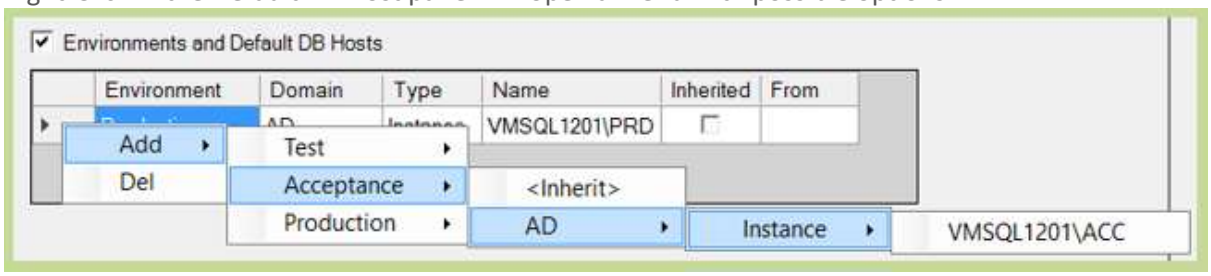
The Default DB Hosts can be inherited from the owning entity.

**Save first**

On all levels you need Save a new entity before you can check the 'Default DB Host' check box and you need to save afterwards as well.

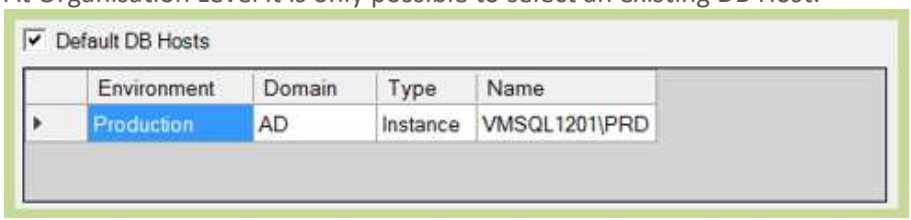
**Set by Right-Click**

Right-Click in the Default DB Host panel will open a menu with possible options:




**Organisation Level**

At Organisation Level it is only possible to select an existing DB Host.




**Unit Level**

At Unit Level you can either select an existing DB Host or Inherit. If you choose Inherit, the DB Host will be inherited from the owning Organisation. If you add an Inherited DB Host but it is not yet defined or has been removed at the parent level, the DB Host will remain empty until added at parent level.

Acceptance is Inherited and not yet defined at Organisation level.

**Application Level**

At Application Level you can either select an existing DB Host or Inherit. If you choose Inherit, the DB Host will be inherited from the owning Unit. If not set at Unit level the owning Organisation will apply. If you add an Inherited DB Host, but it is not yet defined or has been removed at the parent level, the DB Host will remain empty until added.


At application level the Default Instances is in combination with environments. When you add a new application to QGrip, this is where you will specify which Environments (DTAP) the application will have.

**Note**

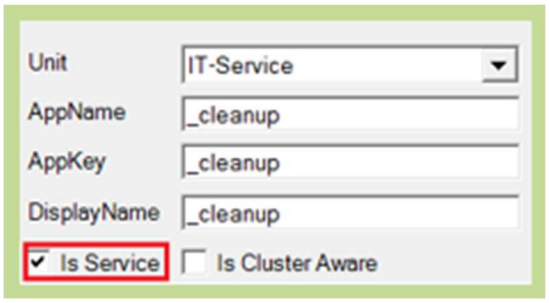
Using Inherited Default Instances is a possibility but completely optional and should only be used if your organisation/architecture is suited for it.

# 4 Link2App

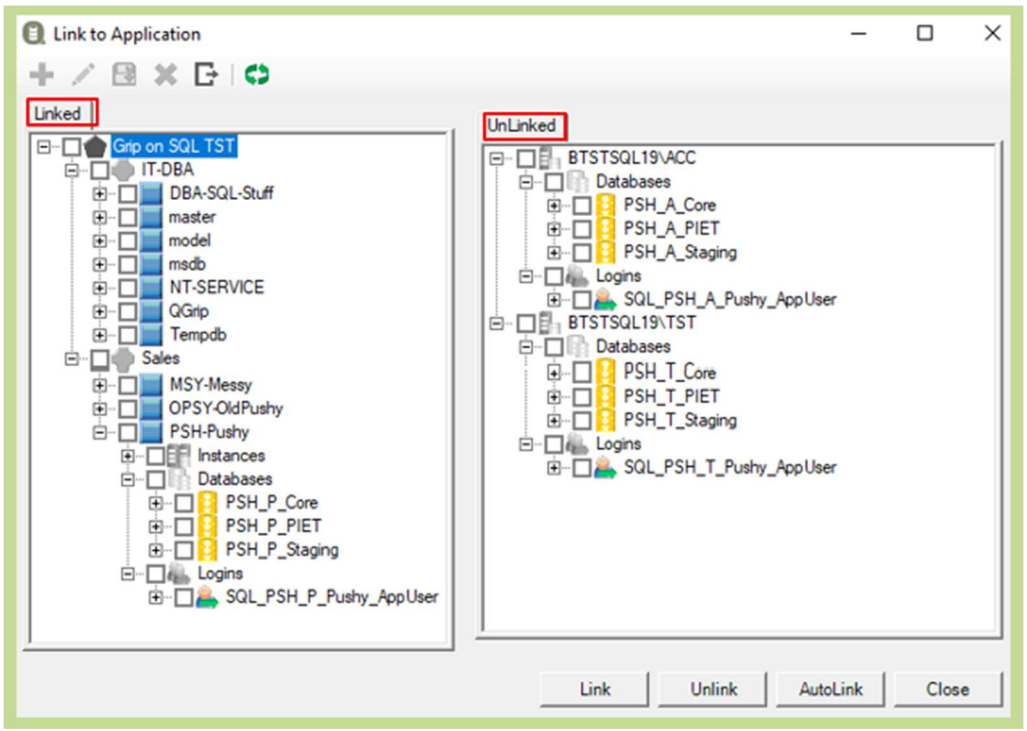
| Required Authorisation | Menu |
|---|---|
| Link Objects to Application | Application -> Link2App |

After the Discover of an Instance, all newly found objects need to be linked to an application, that is considered to be the owner of the object. An object can only have *one* owner.

Be careful when linking the objects. When an object is linked to the wrong Application, it might be accessed and changed and in the worst case dropped by the wrong team. This also influences the Charges (Split Costs).

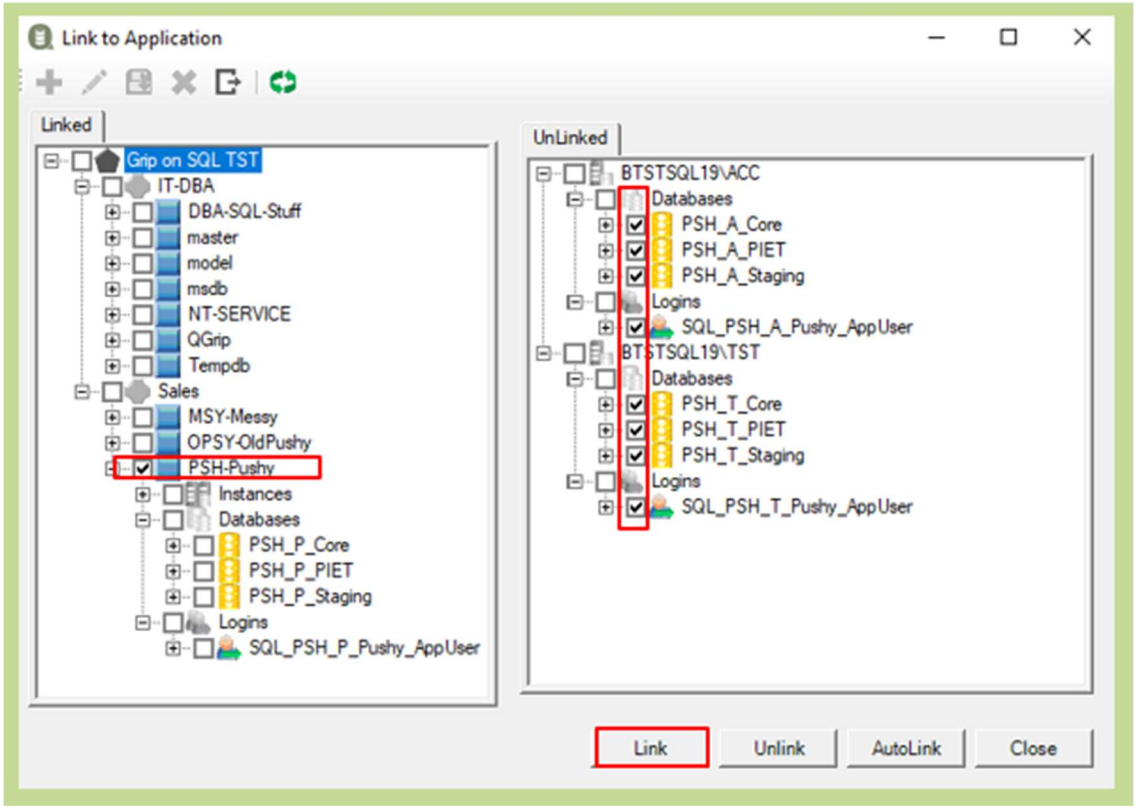



When you first start using QGrip, you will probably be confronted with objects of which the owner and status is unknown. A possible temporary solution is creating a fake Application and link the unclear objects to that Application and sort them out later. Make sure to define the Application as 'Is Service' to avoid confusion as the objects will probably be spread out over several Instances.

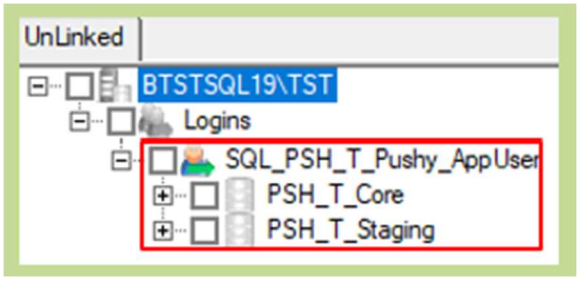



The left Explorer contains the objects that have already been linked to applications and in the right Explorer all objects that need to be linked. Use the  button in the toolbar to refresh the Explorers whenever needed. The aim is to keep the right Explorer empty. A warning will be issued when there are Unlinked objects.

## 4.1 Link Objects

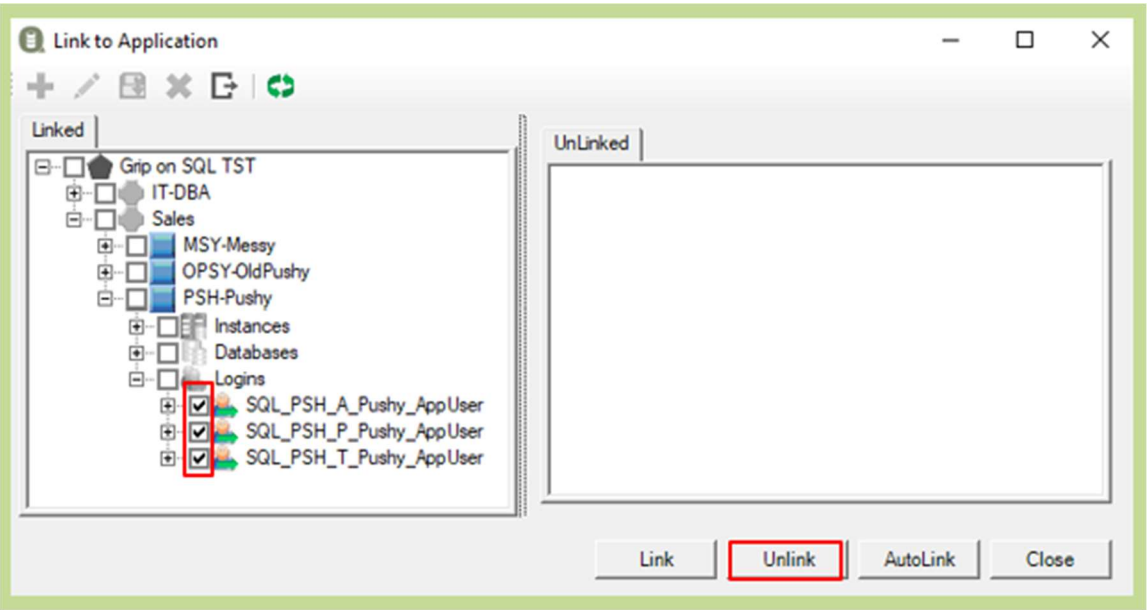



Check the objects you want to link to an application in the right Explorer and check the application in the left Explorer and press Link. The objects will be moved to the application in the left Explorer and disappear in the right. Object with grey 'disabled' icons cannot be checked.




If an unlinked Login is DatabaseUser in one or more databases, the databases will be shown under the Login. This might help you to determine the correct Application to link to.

## 4.2 Unlink Objects




Check the objects you want to unlink in the left Explorer and press Unlink. The objects will be moved to the right Explorer and disappear in the left. Object with grey 'disabled' icons cannot be checked.

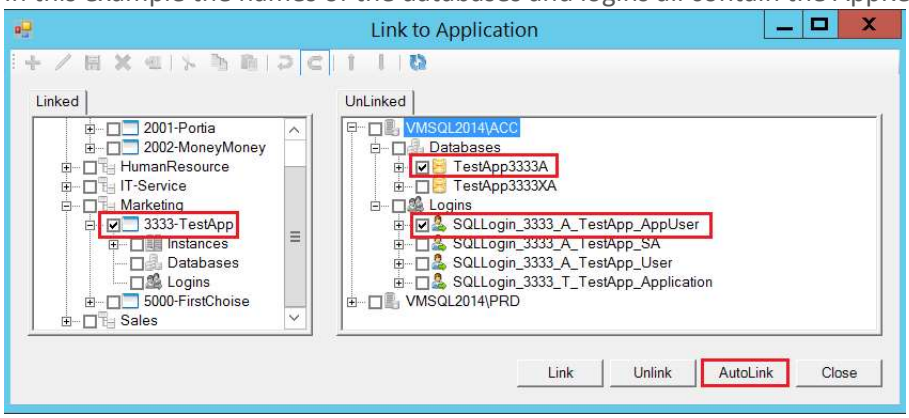
## 4.3 AutoLink Objects

Defining AutoLink rules is great way of minimizing the effort and time spent on Linking objects to an application. How often you can apply it, depends on how standard the names of the objects are in your Organisation. Changes to AutoLink Rules only apply to future AutoLink actions and will never affect already linked object.

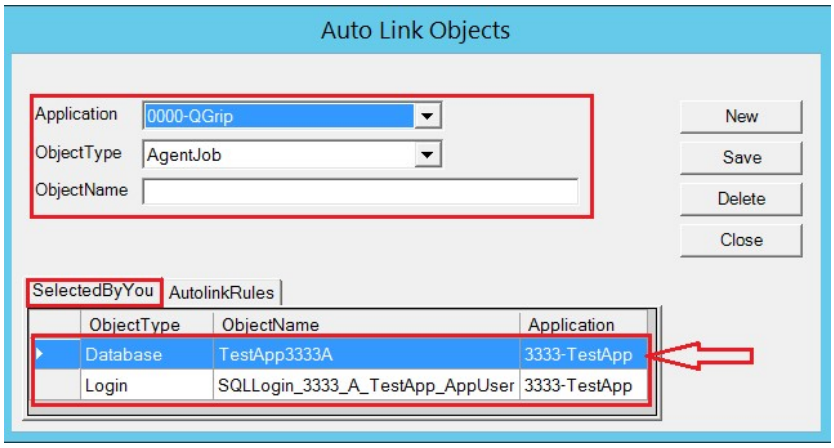
Before Save and Delete, confirmation is needed.

### 4.3.1 Adding AutoLinkRule(s)

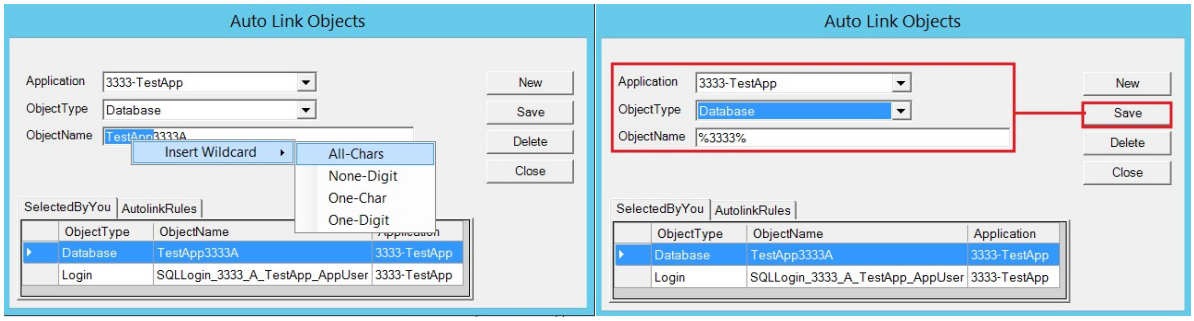
In this example the names of the databases and logins all contain the AppKey 3333.



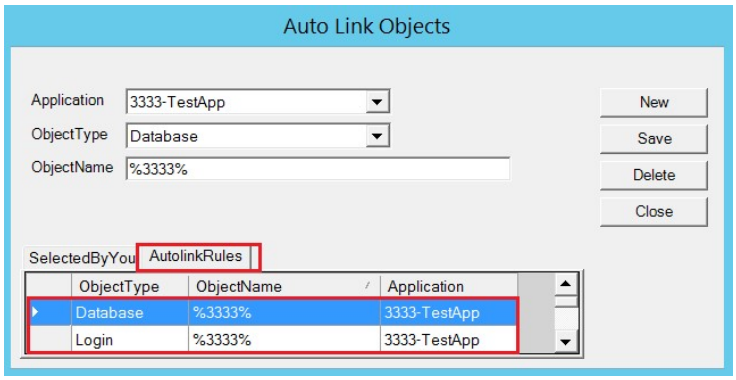

Check the application (3333-TestApp) and one of the databases and one of the logins and press AutoLink. The AutoLink window will open:




In the Tab SelectedByYou the database and logins selected are visible for the selected Application 3333-TestApp. The Application, ObjectType and ObjectName in the input section does not yet contain what we want. By selecting one of the rows in SelectedByYou, the input section will be filled with the values of that row.

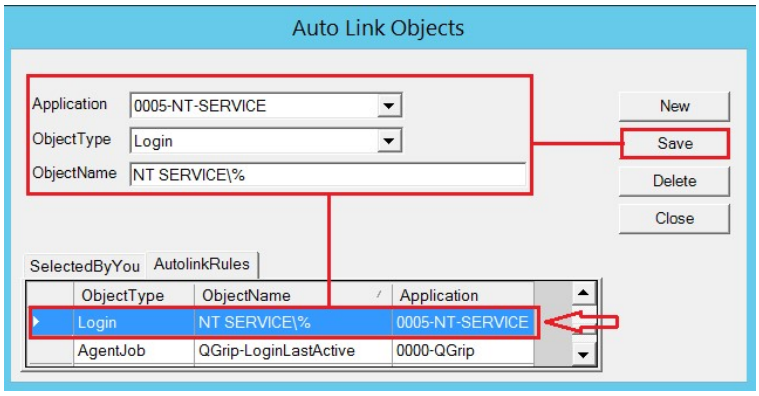



Adjust the ObjectName either by using Right-Click and select a wild card or enter '%' manually and click save. The Database row has now disappeared in the Tab SelectedByYou. Do the same for the row with the Login in the Tab SelectedByYou.



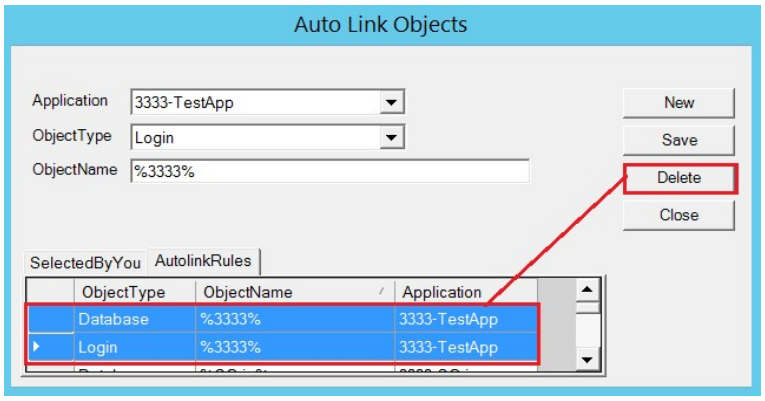

The new AutoLink rules have been added in the Tab AutolinkRules. All databases and logins with %3333% in their name will automatically be linked to Application 3333-TestApp.

### 4.3.2 Changing existing AutoLinkRule



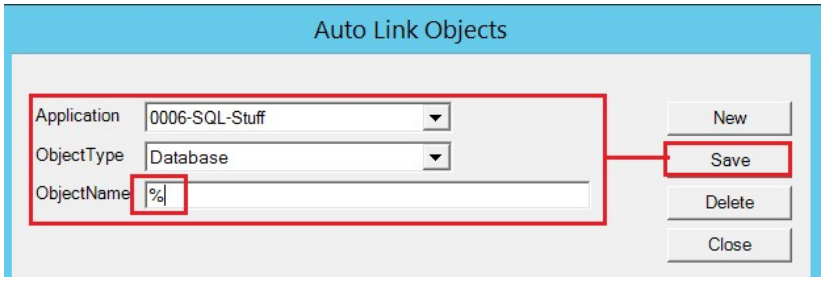

Select the row you want to change to fill the input fields. Adjust the input fields and press Save.

### 4.3.3 Delete AutolinkRule(s)

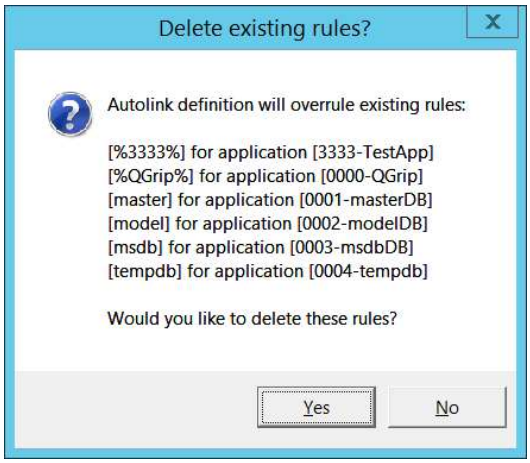



Select the rows you want to delete and press Delete.

### 4.3.4 Overlapping AutolinkRule(s)

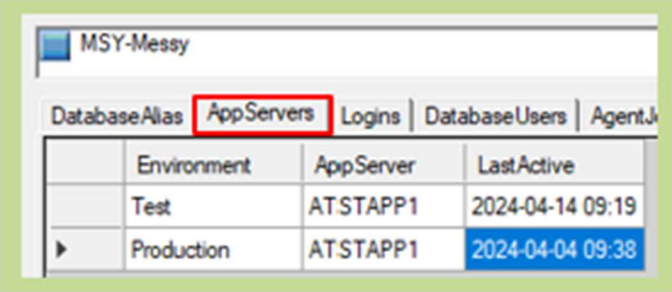



Consider the AutolinkRule above that would apply to every database. If you try to add a rule that will overrule existing rules you will get a warning/question:


Delete existing rules?
Autolink definition will overrule existing rules:
[%3333%] for application [3333-TestApp]
[%QGrip%] for application [0000-QGrip]
[master] for application [0001-masterDB]
[model] for application [0002-modelDB]
[msdb] for application [0003-msdbDB]
[tempdb] for application [0004-tempdb]
Would you like to delete these rules?
Yes
No

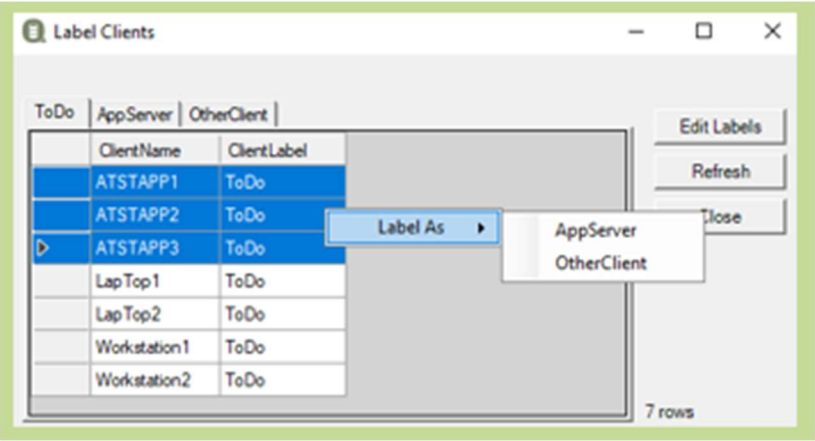
# 5 Label Clients

| Required Authorisation | Menu |
|---|---|
| Label Client | Application -> Label Client |



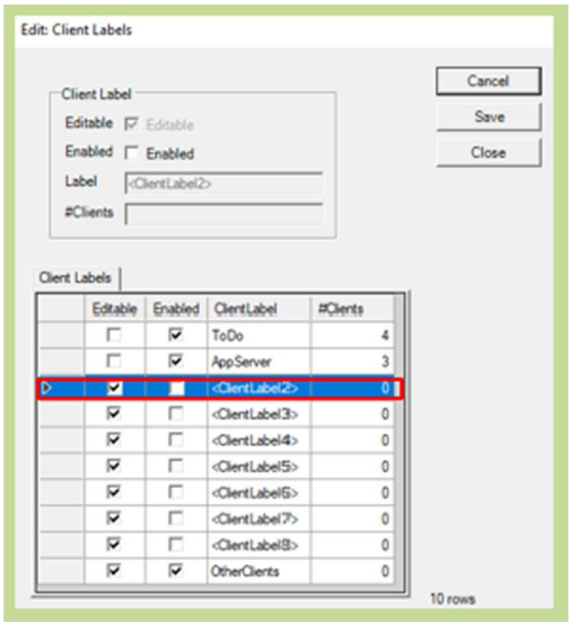

The Discover process collects connecting Clients on the Instances.
By labelling these clients as 'AppServer' (Application Server) or 'OtherClient', a list of AppServer is produced. In the QGrip CMDB, this list can be presented per Application.

**Label Clients:**
Labelling Clients is straight forward.

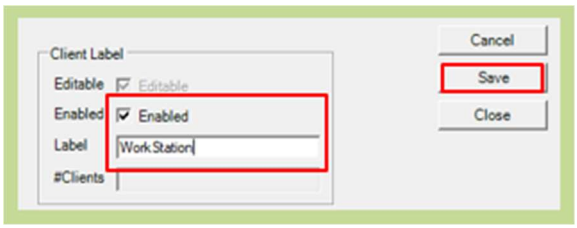



In the ToDo tab, select rows, right click, select the Label.
You can do the same in all tabs to correct mistakes.

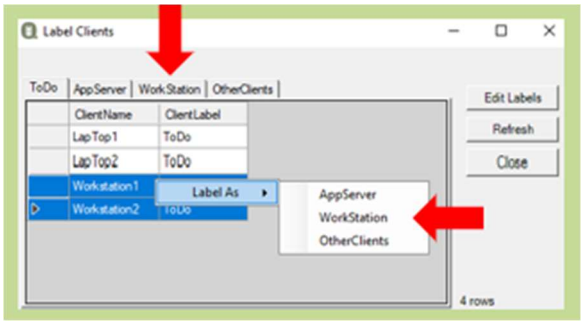
**Add your own labels**
Next to the 'ToDo' and 'AppServer' labels that cannot be changed, you can add up to 8 labels.
Click on the Edit Labels button.




Select the first row that is not Enabled and press Edit to enter Edit mode.




Check the Enabled Checkbox and enter the Label, Workstation in the example. Press save.




When returning to the Label Client Window, a tab Workstation has been added and you can label Clients as Workstation.

# 6 Database Alias

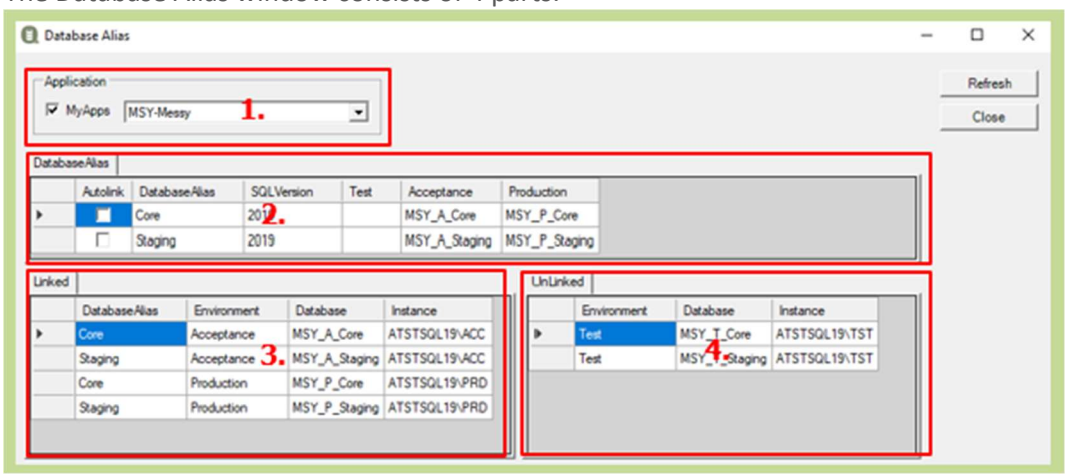
| Required Authorisation | Menu |
|---|---|
| Edit Database Alias (*) | Application -> DatabaseAlias |

(*) For the Application

**Recommended documentation**

| Doc-Tab | Title | Section |
|---|---|---|
| Basics | Database Alias | |

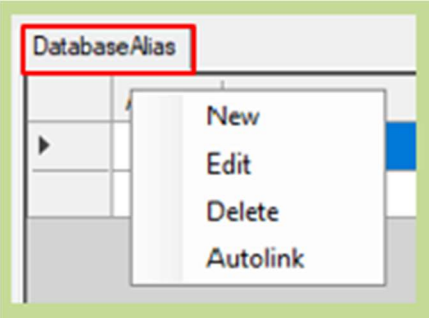
The Database Alias window consists of 4 parts:



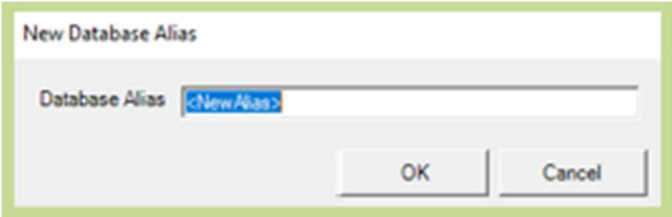

1. Application Selection.
2. Existing Database Aliases including overview databases.
3. Databases linked to a Database Alias.
4. Databases that need to be linked to a Database Alias. This panel should always be empty.

To add, delete, edit, link or unlink, right-click in the panels (2-4) to open the popup Menu.
All changes have immediate effect and are automatically saved.
In panel 3 and 4 you need to select the rows (not cells) in order to Link/Unlink.

## 6.1 Database Alias: New, Edit, Delete

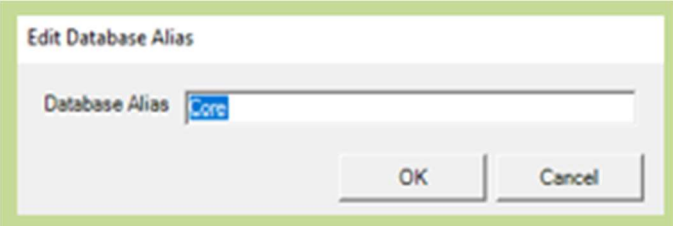



**New**



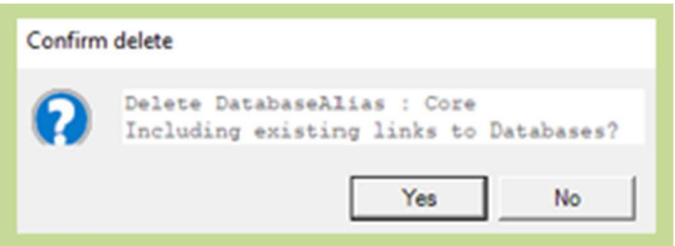

Specify Database Alias (name)

**Edit**



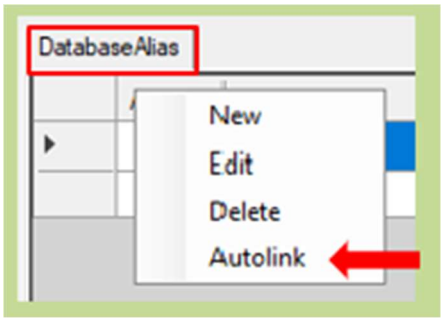

Change the Database Alias (name)

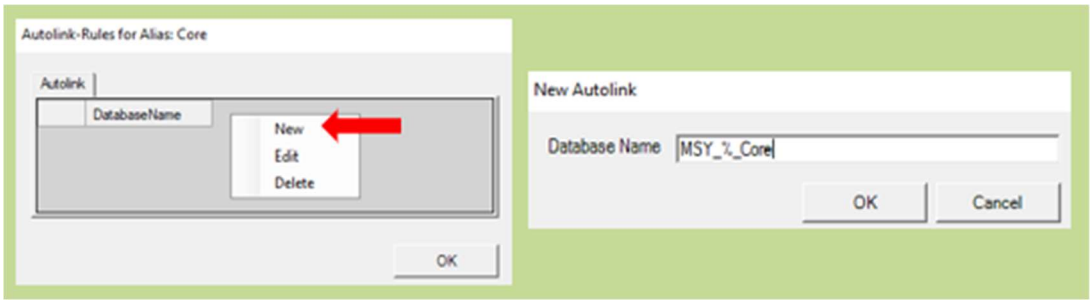
**Delete**



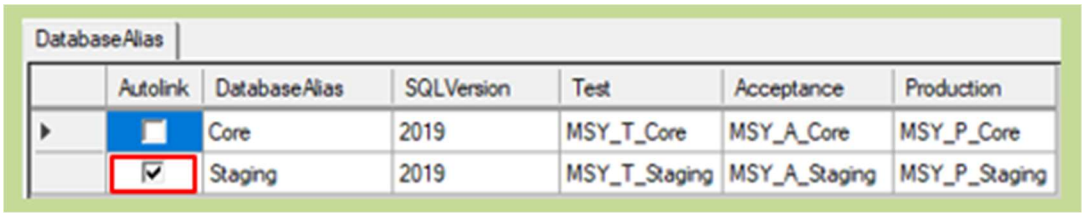

Deletes the Database Alias and all databases linked to it will become Unlinked.

## 6.2 Database Alias: Autolink



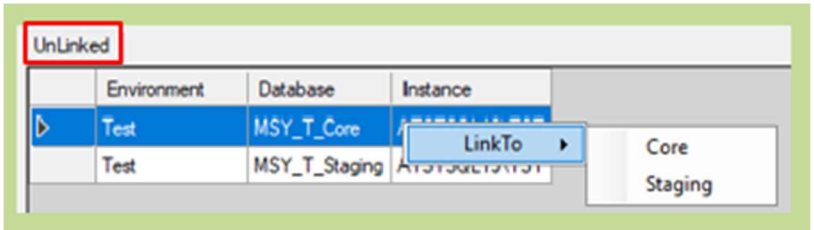

It is possible to define Autolink rules to the database alias, based on the Database name and using the normal SQL Server wildcards to match. The Autolink rule will only be applied to databases that have not yet been linked to a database alias.




When a there are Autolink rules present for a database alias, this will be indicated with a checked box in the Autolink column.

## 6.3 Database Alias: Link

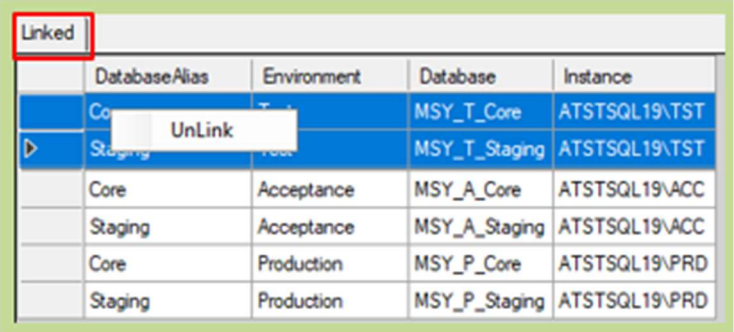
**Link**




Select rows, right-click and choose the appropriate Database Alias.

## 6.4 Database Alias: Unlink

**Unlink**




Select rows, right-click and choose Unlink.

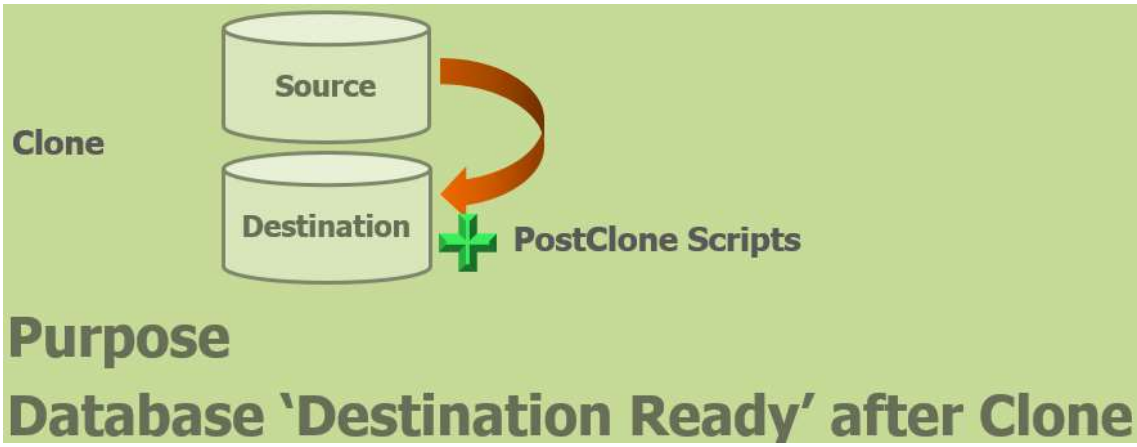
# 7 Post Clone Scripts

| Required Authorisation | Menu |
|---|---|
| Edit PostClone Scripts | Application -> PostClone Scripts |

(*) for the Application

**Recommended documentation**

| Doc-Tab | Title | Section |
|---|---|---|
| Application | Post Clone Scripts | |




The purpose of the PostClone scripts is to adjust a database to fit in the destination environment after a Clone. Mostly, it includes dropping the Source environment database users and create the users needed in the Destination environment. Also common is changing content of Parameter and Configuration tables that is environment dependant.

There are 3 different Script types and they will always run in the same order.

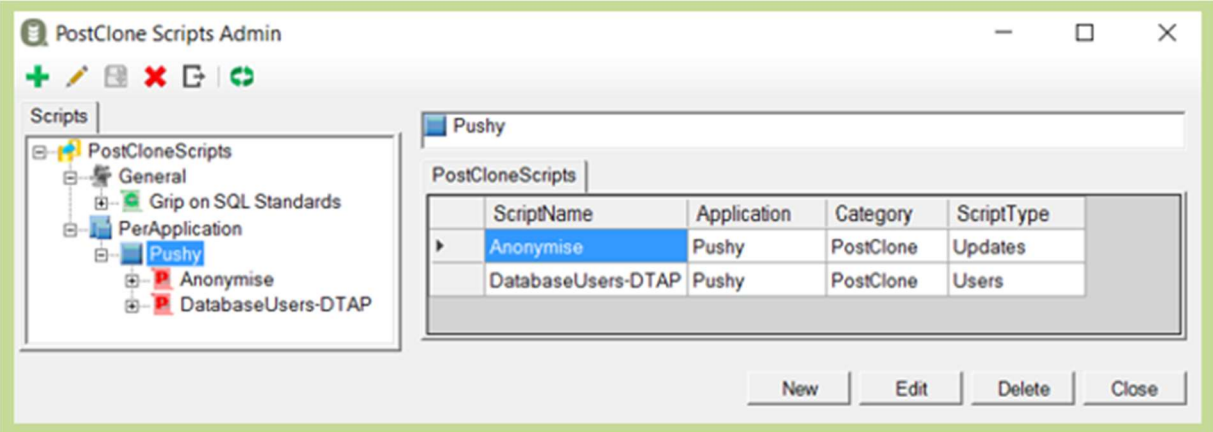
| Order | Script Type | Description |
|---|---|---|
| 1 | General | Can only be edited by QGrip-Admin.<br>It should only contain changes that apply to all databases in all Environments and for all Applications. |
| 2 | Updates | Updates of Parameter and Configuration tables, anonymising data or other adjustments that are not user related. |
| 3 | Users | Drop the existing users and creating the Destination users. |

Updates and Users scripts are created for a specific Application.

Unfortunately, writing PostClone Scripts can be complicated and much depend on how well the database and its security has been designed. Here are some guidelines.

- Use the script menu to Generate Examples, Templates and PostClone scripts to get an idea.
- The aim is to create PostClone scripts that you can run in all Environments and on all Database Aliases for the Application.
- Test the scripts against a local database.
- Clone databases to a develop (or) test environment that is not being used. If enough disk space is available, you should also try to the Clone the production database.
- Be creative!

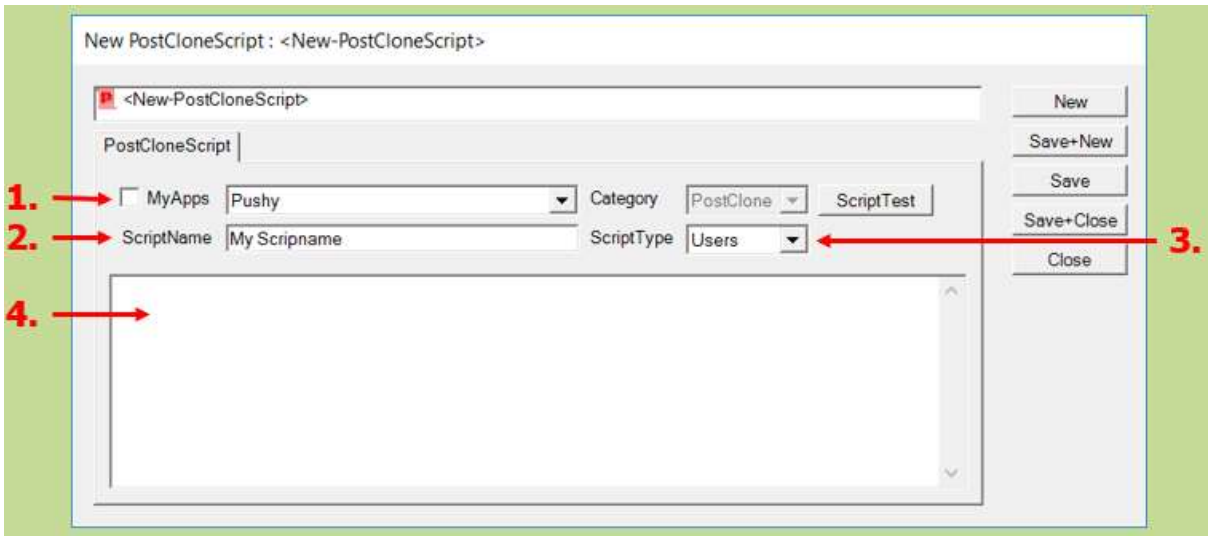
## 7.1 Explorer / Navigate




In the Explorer, you can see existing Post Clone script, grouped by Application. Only QGrip-Admin will be able to see and edit the General script.

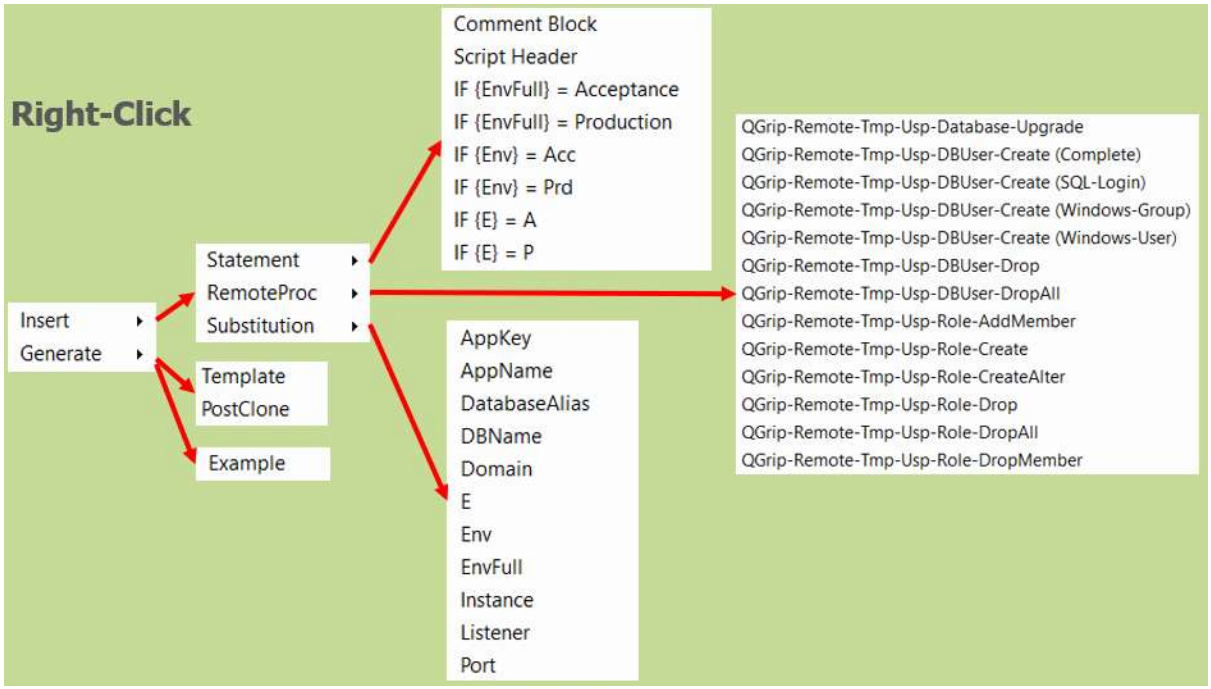
After a script has been changed, you should test it before use.

## 7.2 Script New

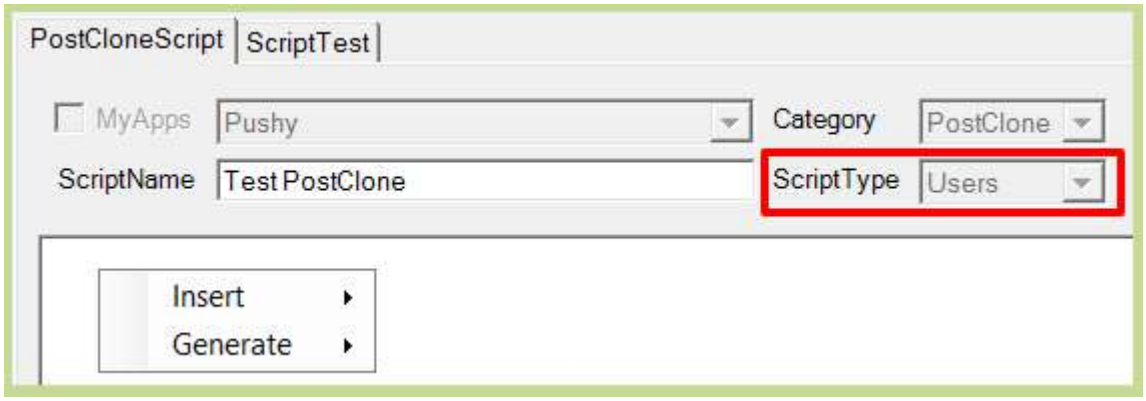



1. Choose the application
2. Enter a script name
3. Choose Script Type: Update or Users
4. Edit the script here

## 7.3 Script Edit




When editing the post clone scripts in the QGrip-UI, a right-click in the script will open a menu to insert pieces of code or substitutions in the script. It is also possible to generate a Template, PostClone or Example.




The options you have in the menu depend on the current Script Type.
Inserts will insert a statement at the cursor position in the Script. The statement block will be inserted with the same amount of space from the beginning of the line.
Generate, will replace the existing script but only after you have accepted the “Overwrite” warning.

### 7.3.1 Insert -> Statement

**Comment Block**
Inserts an empty comment block

**Script Header**
Insert an empty script header that you will need to complete.

**IF ( '{EnvFull}' = 'Acceptance' ), IF ( '{Env}' = 'Acc' ),IF ( '{E}' = 'A' )**
Insert an if statement with Full, Short or Char Environment indication.

### 7.3.2 Insert -> RemoteProc

Inserts an EXEC QGrip-Remote-Tmp procedure call.

### 7.3.3 Insert -> Substitution

Inserts the Substitution variables (the Finds).

### 7.3.4 Generate -> Example

Generates an Example that will hopefully give you an idea of how to proceed. It does not use any application data.

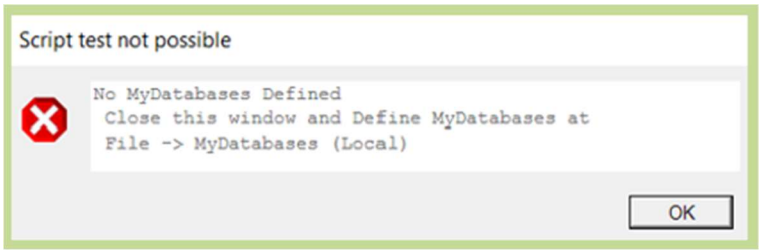
### 7.3.5 Generate -> Template

Generates a Template based on the selected Application and Template information available at that moment. A really good starting point, but you need to check the whole script and remove stuff that is not applicable. In comparison with the PostClone described in the next section, the Template is much more sustainable, but it might need updating after changes to Databases, Logins and Database users.

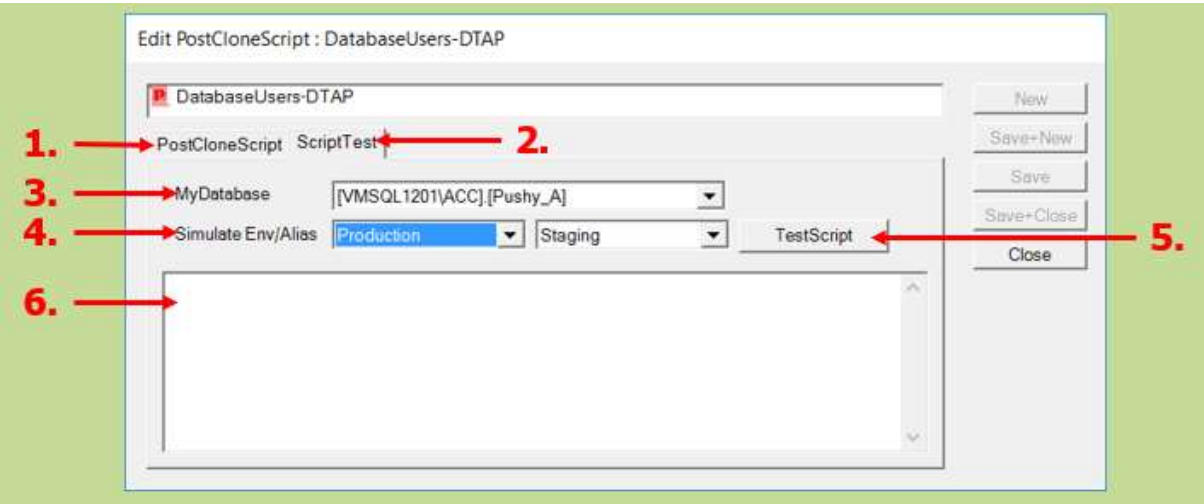
### 7.3.6 Generate -> PostClone

Generates a PostClone script based on the selected Application and the current situation on the Instances / Databases. This is quick but it is a snapshot of the current situation. If a database is moved or users are changed, it will not work as originally intended.

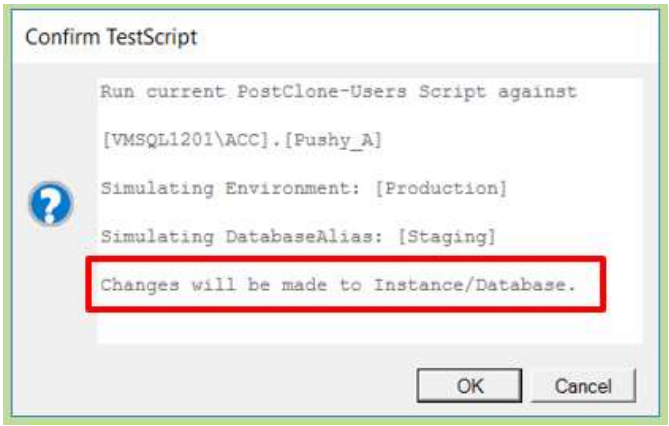
## 7.4 Script Test




Before you can test a post clone script in the QGrip-UI, MyDatabases need to be added.




1. The script in the 'Script' tab will be executed, even if changes have not yet been saved.
2. Select the 'ScriptTest' tab.
3. Choose MyDatabase to execute against.
4. Choose Environment and Database Alias to simulate. QGrip will use these parameters in the Find/Replace.
5. Press the 'TestScript' button and confirm the action.
6. This is where the output of the script can be found.




```
Script Output:
INFO: Dropped DatabaseUser: [SQLLogin_3010_T_Zeus_Application]
INFO: Dropped DatabaseRole: [RoleFATester]
INFO: Dropped DatabaseRole: [RoleApplication]
INFO: Created DatabaseRole: [RoleFATester]
INFO: DatabaseRole: [RoleFATester] DBPermissions granted: [Execute]
INFO: Added [RoleFATester] as member of DatabaseRole [db_datareader]
INFO: Added [RoleFATester] as member of DatabaseRole [db_datawriter]
INFO: Created DatabaseRole: [RoleApplication]
INFO: DatabaseRole: [RoleApplication] DBPermissions granted: [Select,Insert,Delete,Update,Execute,References,Alter]
INFO: Created DatabaseUser: [SQLLogin_3010_T_Zeus_Application] from Login [SQLLogin_3010_T_Zeus_Application]
INFO: DefaultSchema: [dbo] set for DatabaseUser [SQLLogin_3010_T_Zeus_Application]
INFO: Added [SQLLogin_3010_T_Zeus_Application] as member of DatabaseRole [RoleApplication]
```

Example Output

# 8 App Objects

| Required Authorisation | Menu |
|---|---|
| App Objects (*) | Application -> App Objects |

(*) You will only see the Applications you are authorised for. Deploying App Objects in different environments depend on your Request/Approve/Auto-Approval rights for specific Application.

**Recommended documentation**

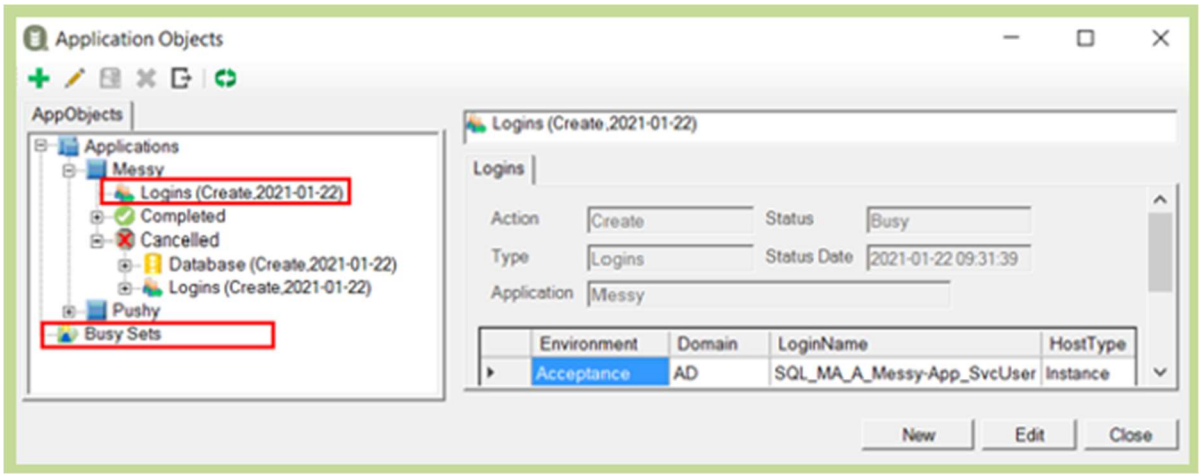
| Doc-Tab | Title | Section |
|---|---|---|
| Application | App Objects | |

| Pre-requests | Menu |
|---|---|
| Environments and Default Instances | Application -> Organisations Applications |
| DatabaseAlias | Application -> DatabaseAlias |
| Template Database | Admin -> Template -> Database |
| Template Database Role | Admin -> Template -> Database Role |
| Template Login | Admin -> Template -> Login |

It is important that the content of the QGrip CMDB is up-to-date. Make sure that Discover has run recently on the Instances of the application and that all objects have been linked properly.

The AppObject windows might at first be intimidating and seem illogical. It is a different way of working, but once you get used to it, you will see that they are very efficient and will save a lot of time for standard objects.

## 8.1 Explorer / Navigate




In the Explorer, sets with status Busy are located directly under the Application. There is also a “Busy Sets” container at the highest level so they can easily be found.

When a Set is Completed or Cancelled, it is moved to the Completed / Cancelled container.

If a deployment is Skipped in all Environments, the Set is still regarded as Completed.

## 8.2 Global steps

Whenever creating an App Objects set, stick to the following steps.

1. Create the App Objects set
2. Complete editing in all available Environment tabs
3. Check the parameters in all Environments tabs (again)
4. Start deploying in the right order: D -> T -> A -> P

Once you have pressed [Add2Queue] or [Skip Env] in one Environment, the complete set will not be editable anymore.

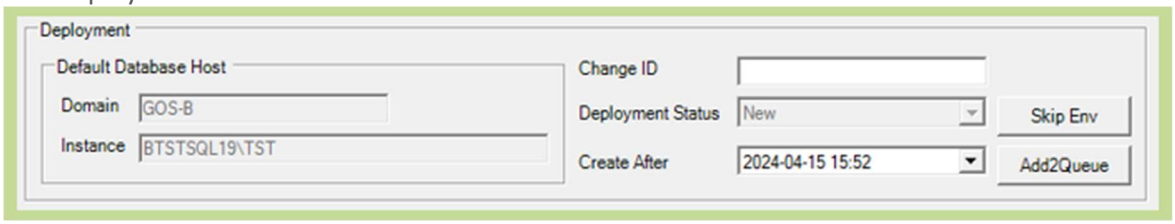
## 8.3 New Set

When you (try to) create a new set, you might run into one of the following situations.

| Set Type | Situation | Reason |
|---|---|---|
| Create Database<br>Create Logins | Error Message<br>No (DTAP) environments have been defined for this application. | You need to Define Environments/Default DBHost for the Application. |
| Create Database without Database Alias | Error Message:<br>Selection Incomplete | Database Aliases need to be added for the Application. |
| Drop (All types) | Edit window is Empty. | There are no objects to drop. |

## 8.4 Deployment Status

The Deployment section of an Environment tab looks like this.




Depending on the Deployment status, different Action/Info buttons will be available.

| Deployment Status | Description | Action / Info Buttons |
|---|---|---|
| New | No deployment has taken place. | Add2Queue, Skip Env |
| Queued | Deployment is on the Queue, waiting to be picked up. | Refresh |
| Completed | Deployment has successfully taken place. | ViewLog |
| Failed | Deployment failed. | ViewLog |
| Awaiting Approval | Deployment is waiting for approval. | Refresh |
| Request Denied | Approval was Denied. | View Reason |
| Insufficient Rights | You do not have sufficient right to push Deployment for the current Environment on Queue. | Explain |
| Cancelled | The whole App Objects set has been cancelled. | None |
| Skipped | Deployment in current Environment has been skipped. | None |

Depending on your configuration, you might need to add a ChangeID when you push a request on the Queue using the Add2Queue button.

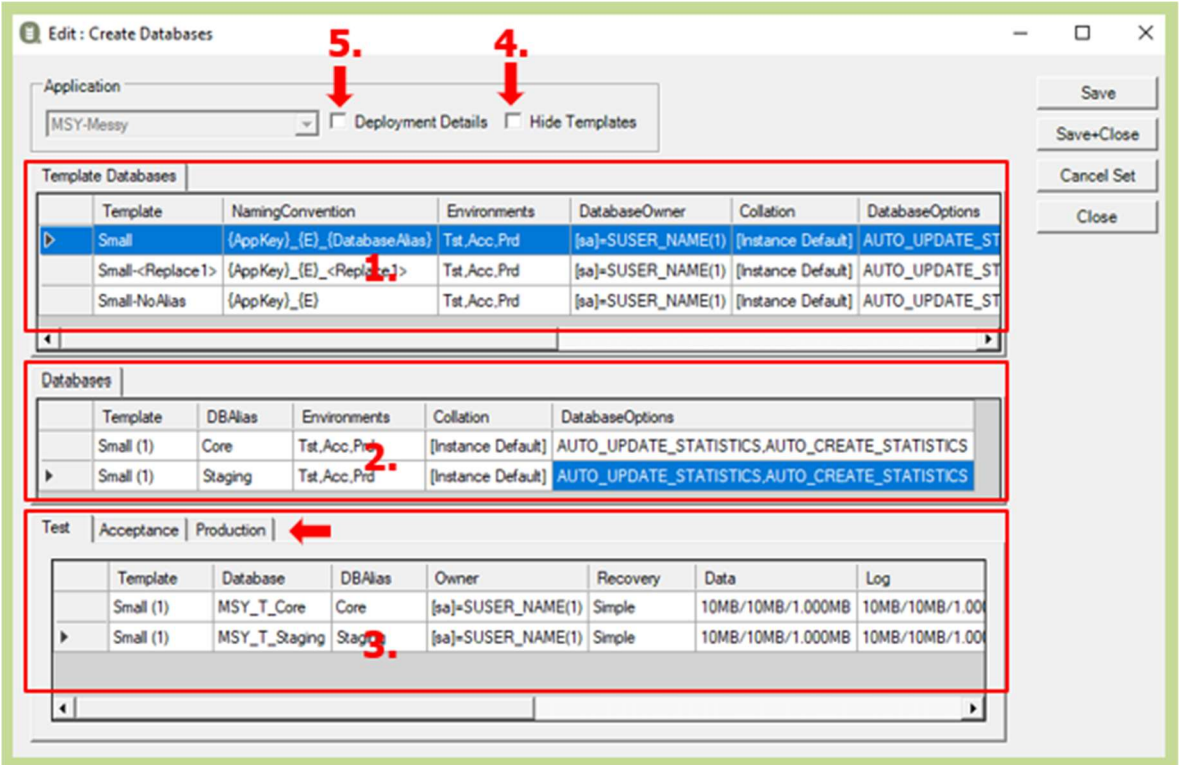
## 8.5 Cancel Set

As long an App Objects set has not been deployed (or Skipped) in one environment, the whole set can be cancelled. Open the Set with edit and press the Cancel-Set button.

If the App Objects set has been deployed or skipped in one or more Environments, you need to press the Skip Env button in the remaining Environments.

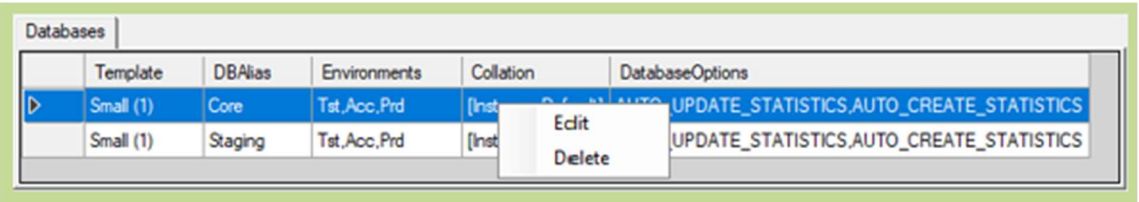
## 8.6 Create Databases

### 8.6.1 The Create Databases window




The Create Database window:

1. The Template Databases that can be used to create new databases
2. The Databases with setting that should be the same in all DTAP environments
3. One tab per DTAP environment with the actual physical Databases
4. Once the Databases have been generated from the Templates, they can be hidden for more room on the Window.
5. Check Deployment Details when ready with specification and start with rollout.

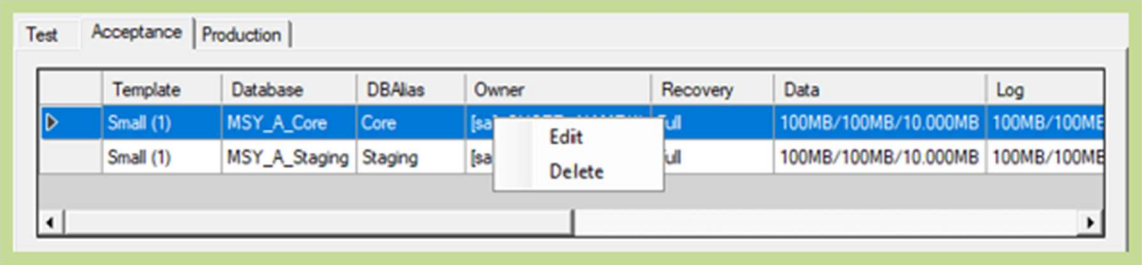



**Edit**

Parameters that should be the same in all DTAP environments such as Collation and/or Database options.

**Delete**

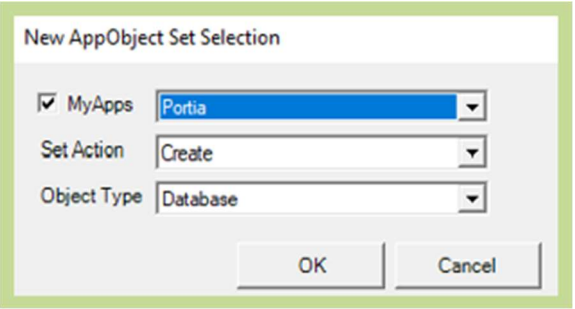
If you delete a record here, the related records (databases) will be deleted in each DTAP environment.



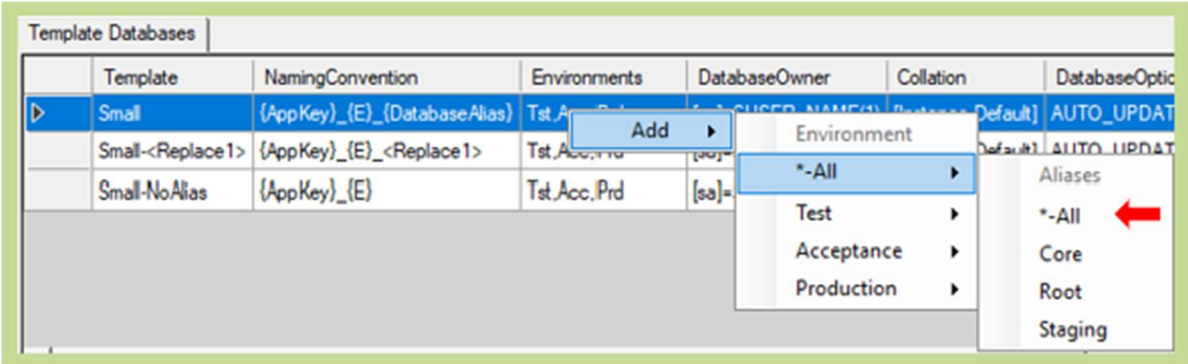

**Edit**
Just Edit the selected records in the DTAP environment tab.
**Delete**
Just delete the records in the DTAP environment tab.

### 8.6.2 Create Databases

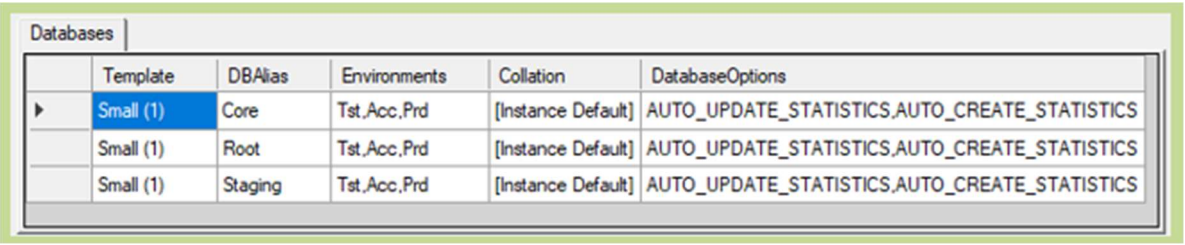
Click on the New button



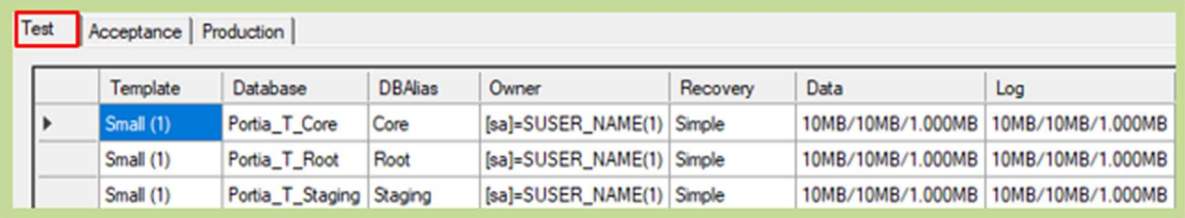

Select Application, Create, Database.




From the Template Small, Add for All environments, for All Aliases.

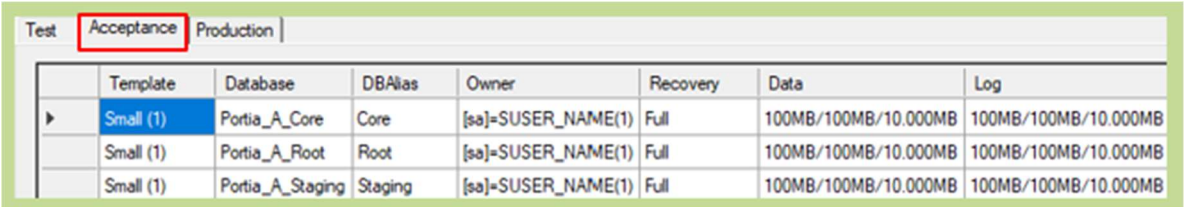



For each Database Alias, a Database record has been created for Tst, Acc and Prd.



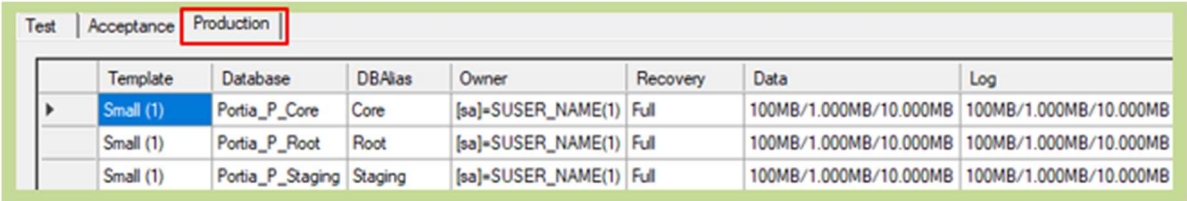

| Template | Database | DBAlias | Owner | Recovery | Data | Log |
|---|---|---|---|---|---|---|
| Small (1) | Portia_T_Core | Core | [sa]=SUSER_NAME(1) | Simple | 10MB/10MB/1.000MB | 10MB/10MB/1.000MB |
| Small (1) | Portia_T_Root | Root | [sa]=SUSER_NAME(1) | Simple | 10MB/10MB/1.000MB | 10MB/10MB/1.000MB |
| Small (1) | Portia_T_Staging | Staging | [sa]=SUSER_NAME(1) | Simple | 10MB/10MB/1.000MB | 10MB/10MB/1.000MB |

In Test, 3 databases will be created.



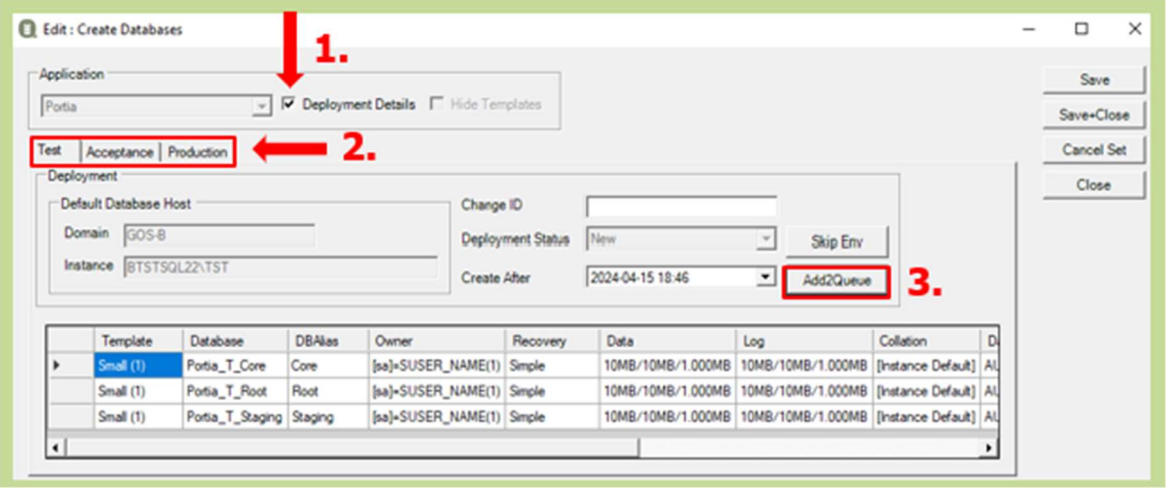

| Template | Database | DBAlias | Owner | Recovery | Data | Log |
|---|---|---|---|---|---|---|
| Small (1) | Portia_A_Core | Core | [sa]=SUSER_NAME(1) | Full | 100MB/100MB/10.000MB | 100MB/100MB/10.000MB |
| Small (1) | Portia_A_Root | Root | [sa]=SUSER_NAME(1) | Full | 100MB/100MB/10.000MB | 100MB/100MB/10.000MB |
| Small (1) | Portia_A_Staging | Staging | [sa]=SUSER_NAME(1) | Full | 100MB/100MB/10.000MB | 100MB/100MB/10.000MB |

In Acceptance, 3 databases will be created.

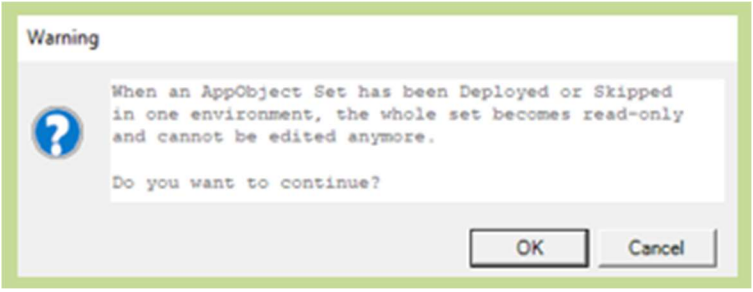



| Template | Database | DBAlias | Owner | Recovery | Data | Log |
|---|---|---|---|---|---|---|
| Small (1) | Portia_P_Core | Core | [sa]=SUSER_NAME(1) | Full | 100MB/1.000MB/10.000MB | 100MB/1.000MB/10.000MB |
| Small (1) | Portia_P_Root | Root | [sa]=SUSER_NAME(1) | Full | 100MB/1.000MB/10.000MB | 100MB/1.000MB/10.000MB |
| Small (1) | Portia_P_Staging | Staging | [sa]=SUSER_NAME(1) | Full | 100MB/1.000MB/10.000MB | 100MB/1.000MB/10.000MB |

In Production, 3 databases will be created.




1. Check the Deployment Details to enable rollout.
2. For each DTAP Environment
3. Add2Queue




When pushing Add2Queue in the first environment a warning is issued.

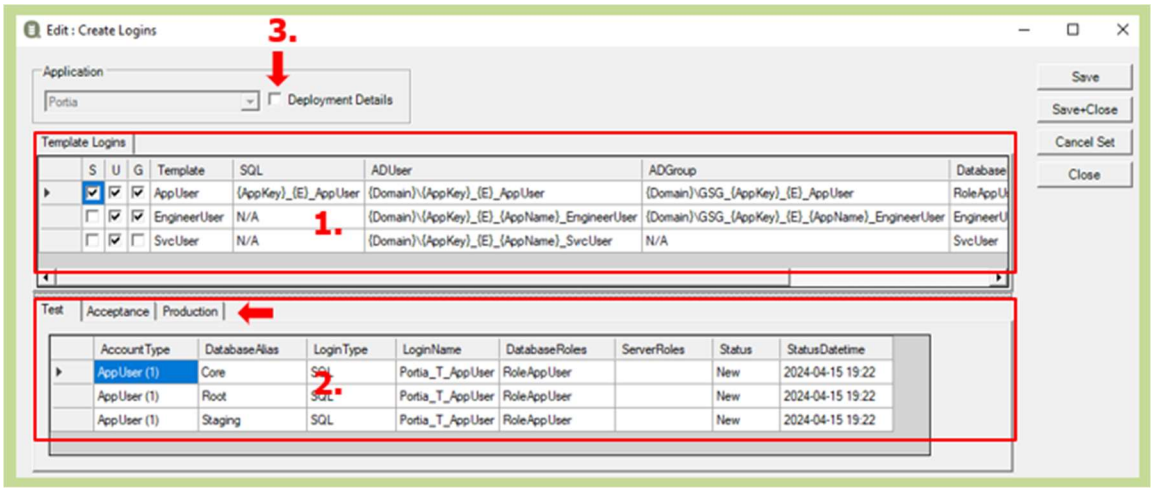
## 8.7 Create Logins (and Database Users)

Create Logins is really a combination of Logins, Database Users and their Database Roles.

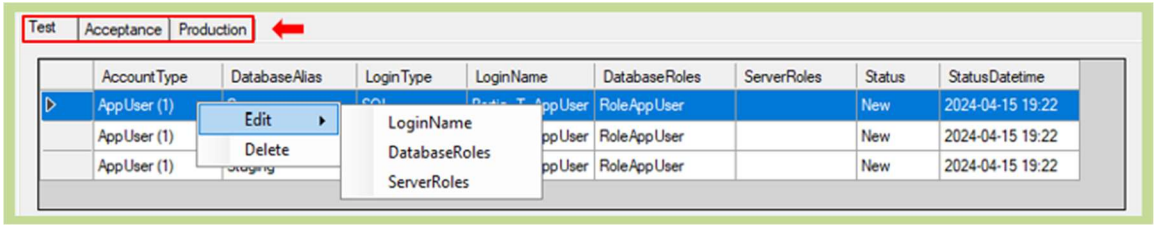
**Instance level**
The Login will only be created if it does not already exist.
When creating a new SQL Login an entry will be added to the Password Safe.
Server Roles will only be added to the Login, never removed.

**Database level**
The Database User will only be created if it does not already exist.
Database Roles will only be added to the Database User, never removed.
Permissions for Database Roles with source Template will be completely updated.

### 8.7.1 The Create Logins window



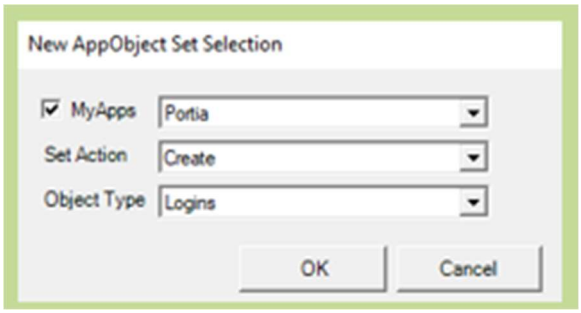

The Create Logins window:
1. The Template Logins that can be used to create new Logins/Database Users
2. One tab per DTAP environment with the Logins/Database Users
3. Check Deployment Details when ready with specification and start with rollout.



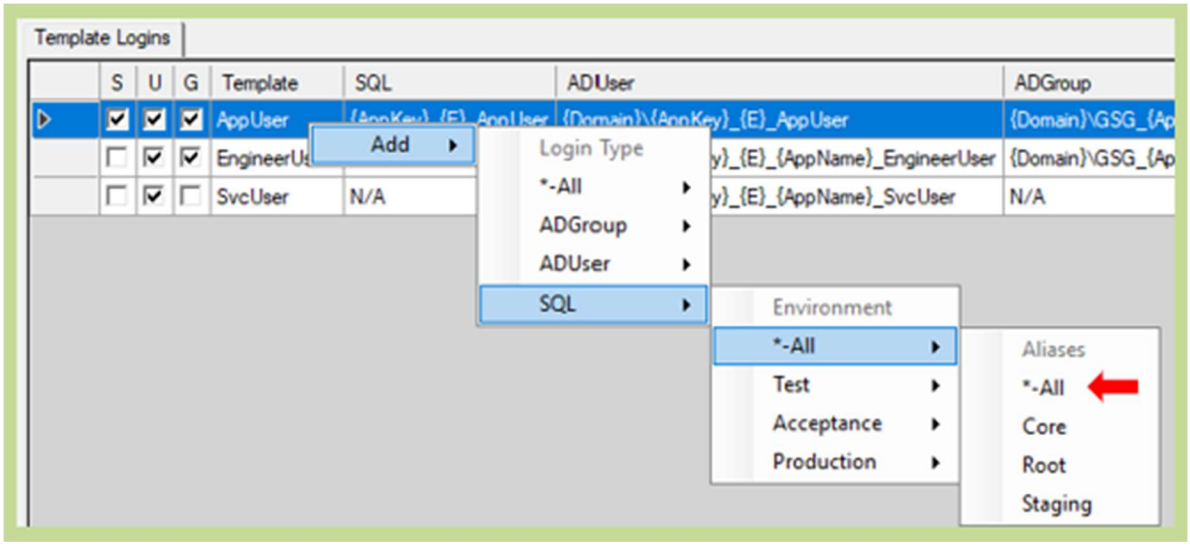

**Edit – LoginName**
**Edit – DatabaseRoles**
**Edit – Server Roles**
**Delete – Selected Records**

### 8.7.2 Create Logins

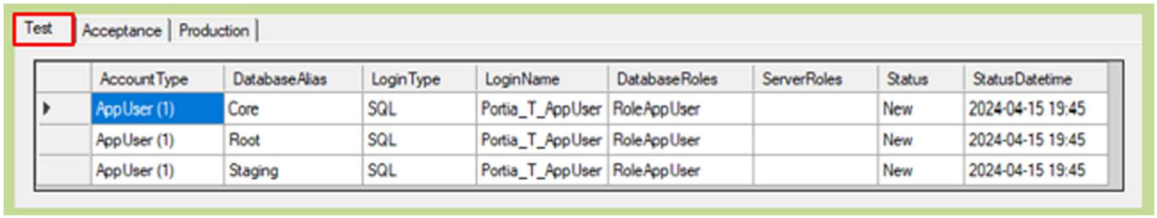
Click on the New button



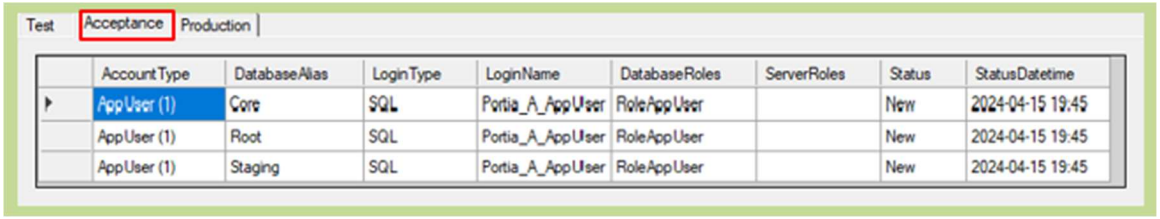

Select Application, Create, Logins.



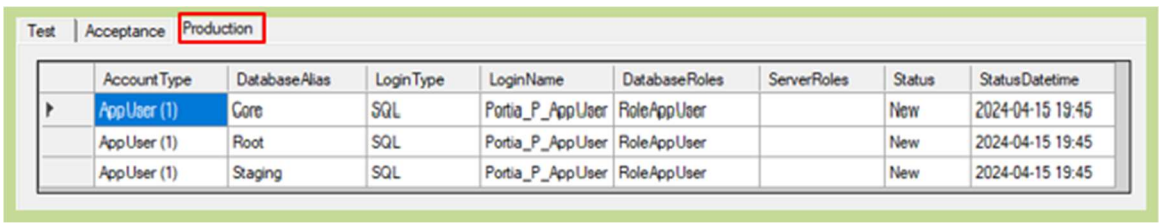

From the Template AppUser, Add Login Type SQL in All environments, for All Aliases.



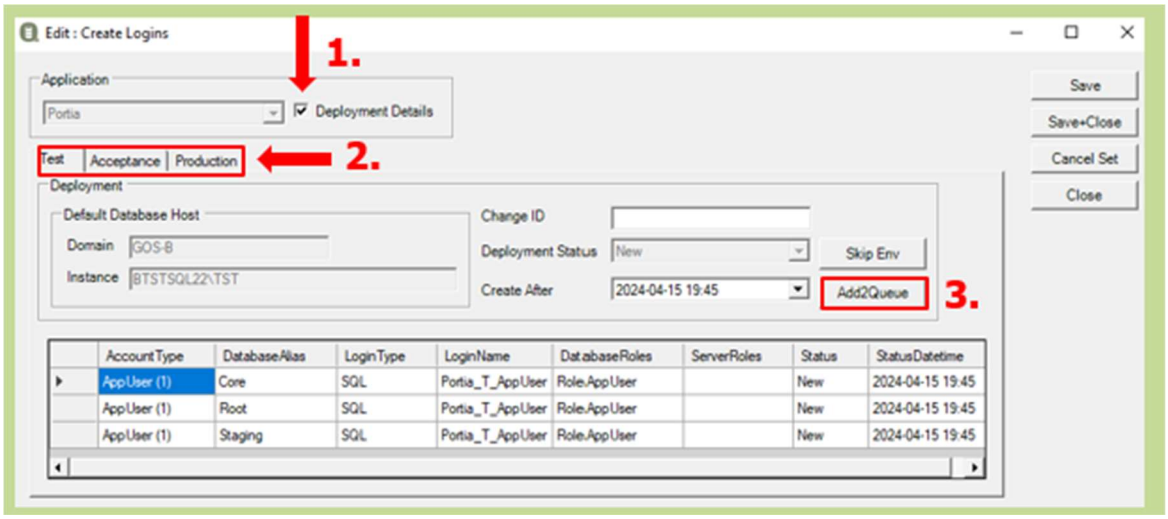

In Test, 3 Logins/Database Users will be created.



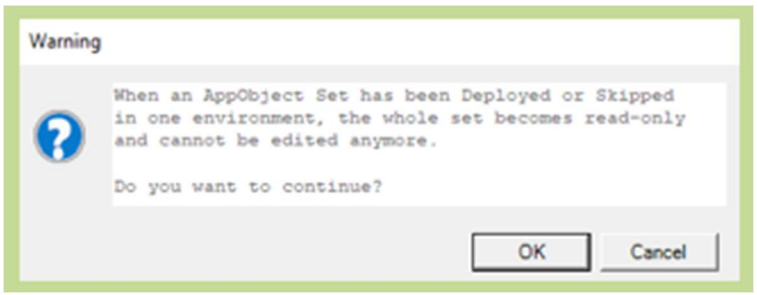

In Acceptance, 3 Logins/Database Users will be created.




In Production, 3 Logins/Database Users will be created.




1. Check the Deployment Details to enable rollout.
2. For each DTAP Environment
3. Add2Queue



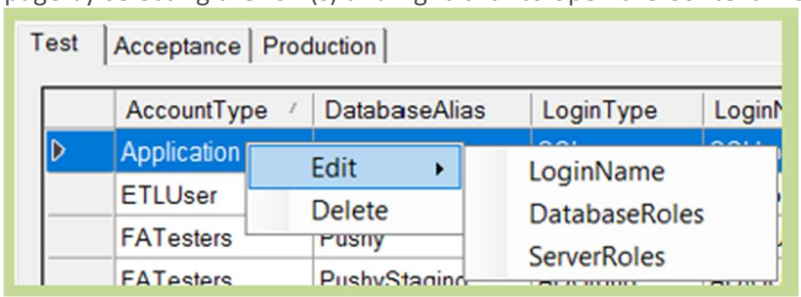

When pushing Add2Queue in the first environment a warning is issued.

### 8.7.3 Verify AD accounts

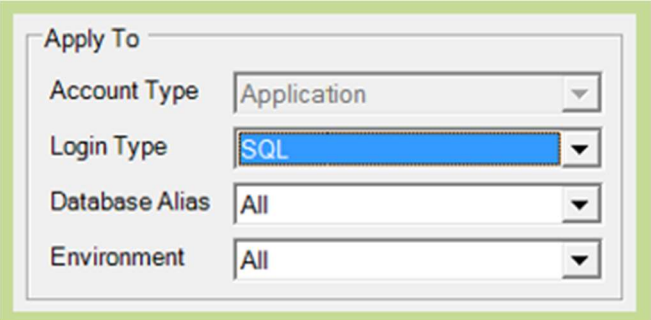
The first time (in the first Environment) a Deployment is initiated for a Create Logins set, using either [Skip Env] or [Add2Queue], a check will be performed to verify that used AD-Users and AD-Groups exist on AD. If this check fails, you will receive a message with an overview of accounts missing on AD. As long as the Accounts are part of the set and not exist on AD, deployment will not be possible.

### 8.7.4 Edit Environment tab-page rows

After adding Logins from the Template Logins, you can edit/delete rows in the Environment(s) tab-page by selecting the row(s) and right-click to open the Context Menu:

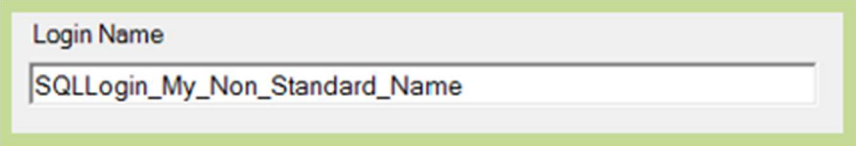


In the Apply To sections of the Edit window, you need to specify which occurrences should be updated. The “All” wildcard enables you to update multiple occurrences in one go.




In the selection above, all occurrences with Account Type Application and Login Type SQL will be affected.

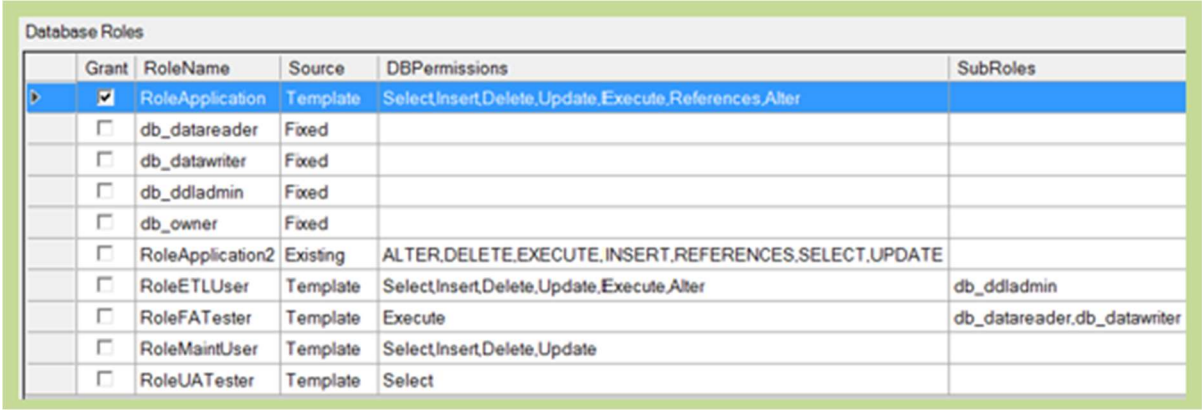
### 8.7.5 Edit: Login Name




When changing the Login Name, you are likely to deviate from the standard naming convention.

### 8.7.6 Edit: Database Roles

Best is to stick to the Database Role defined together with the Template login but if needed, this option enables you to grant (other) database roles.




The DB Permissions column shows the permissions the role has on database level.

| Source | Description |
|---|---|
| Template | Template database roles defined by the QGrip-Admin. |
| Fixed | SQL Server standard database roles. |
| Existing | Database role already exists in the database(s) |

It is possible that a Role Name is listed twice, once with source Template and once with source Existing. In that case you will only be able to choose one of the occurrences.

**Template vs Existing**

| Source | Deployment rules |
|---|---|

| | |
|---|---|
| Template | If the Database Roles already exists in the database, its permissions will be replaced with the “new” permissions during deployment. |
| Existing | The permissions of the database role will NOT be changed. |

**Existing and Database Alias / Environment All**

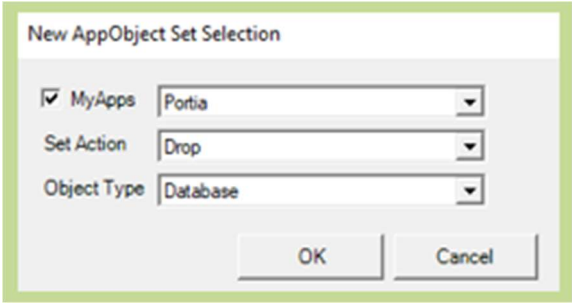

When you grant an Existing role in combination with Database Alias and/or Environment All, the Database Role must already exist in all databases affected by the combination. This check will be performed before any records are updated.

### 8.7.7 Edit: Server Roles

You can also add server roles to the login. Only “bulkadmin” is available at this moment.

## 8.8 Drop Databases

Click on the New button



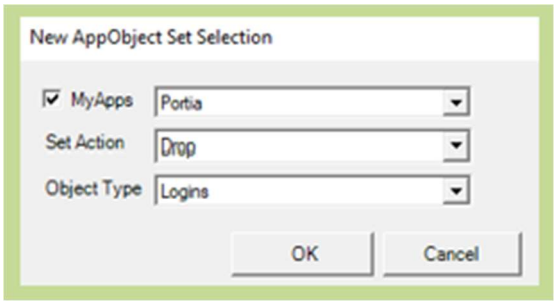

Select Application, Drop and Database.

In each Environment tab-page, mark the databases you want to drop by checking the Drop column and pay attention to the Instance name so that you do not drop the database on the wrong Instance.

Before starting deployment, consider making an Archive backup of the databases you are about to drop.

## 8.9 Drop Logins (and/or Database Users)

Click on the New button



Select Application, Drop and Logins

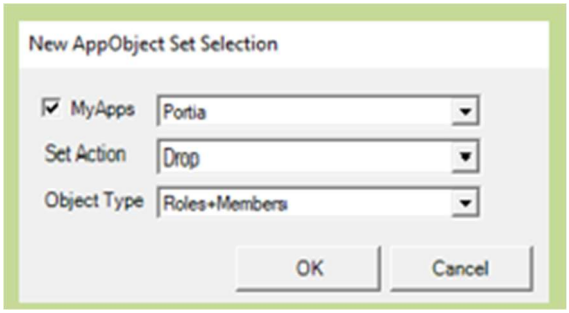
In each Environment tab-page, there are is one section for Logins and one for Database Users. Mark the Logins and Database Users you want to drop by checking the Drop column and pay attention to the Instance and Database name so that you drop the right occurrence.

Dropping a Login, the corresponding database users will NOT automatically be dropped. You will need to mark the corresponding Database Users for Drop as well to avoid orphan Database Users.

If a Database User owns objects in the database, the drop will fail. Exception is an empty Schema, that will automatically be dropped as well. If the database has been designed properly, a Database User will not own objects.

## 8.10 Drop Roles + Members

Click on the New button



Select Application, Drop and Roles + Members

In each Environment tab-page, there are is one section for Database Roles, Database Role Members and Server Role Members.

Mark what you want to drop by checking the Drop column and pay attention to the Instance/Listener and Database name so that you drop the right occurrence.

| Drop Type | Description |
|---|---|
| Database Role | The database role will be dropped after its members have been removed. |
| Database Role Members | The member will be removed from the Database Role. |
| Server Role Members | The member will be removed from the Server Role. |

# 9 Connect-Info

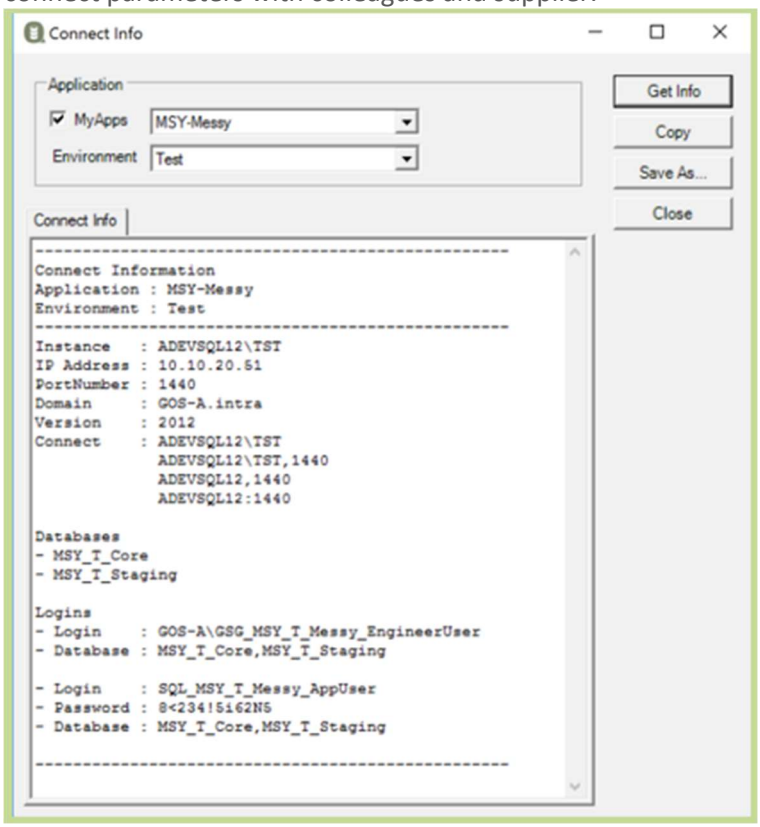
| Required Authorisation | Menu |
|---|---|
| Passwords (*) | Application -> Connect Info |

(*) Uses the same authorisation as passwords. You will only see the Applications and Environments you are authorised for.

**Recommended documentation**

| Doc-Tab | Title | Section |
|---|---|---|
| Application | Password Safe & Connect Info | Connect Info |

The Connect Info uses the content of the Password safe. The Connect Info can be used to share connect parameters with colleagues and supplier.




Select Application and Environment and Press ‘Get Info’. AD logins will also be included.
If a password is not valid, you will receive a warning but the information will still be provided (without the missing password).

# 10 Password Safe

| Required Authorisation | Menu |
|---|---|
| Passwords (*) | Application -> Password Safe |

(*) You will only see the Applications and Environments you are authorised for.

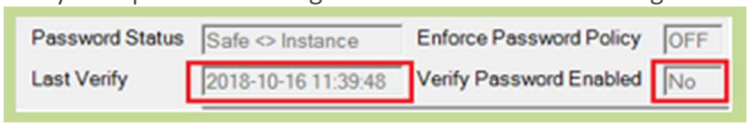
**Recommended documentation**

| Doc-Tab | Title |
|---|---|
| Application | Password Safe & Connect Info |

QGrip comes with a Password Safe that will contain entries for all Logins with SQL Server authentication, from now on referred to as Account. When an Account is created via QGrip AppObjects or in a PostClone script, a Password will be generated and the Password Safe will automatically be updated.

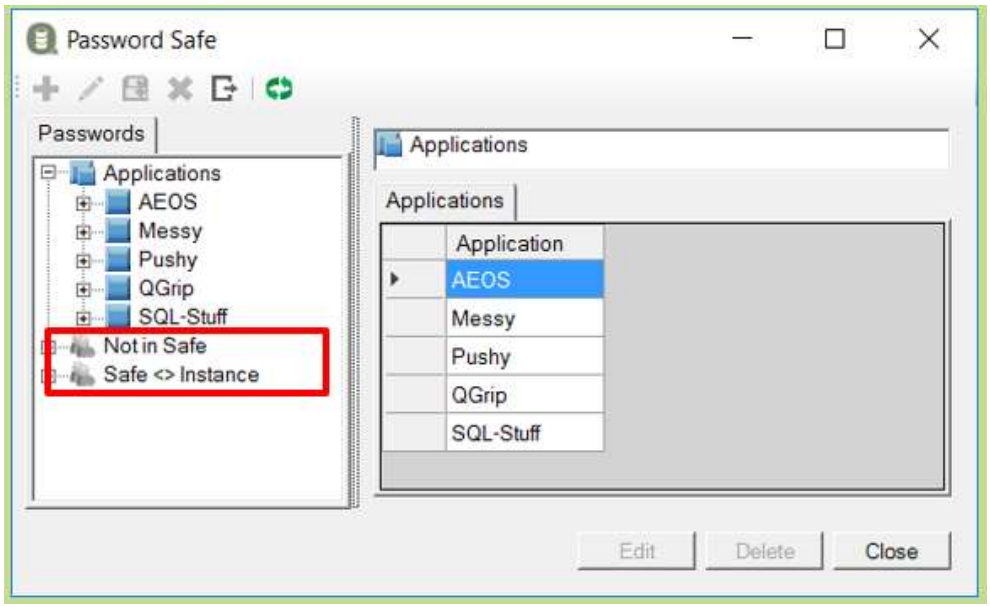
**Verify Password**

If the Discover process finds an Account on an Instance that is not already in the Password Safe, it will be added with status “Not in Safe”. If you have the password elsewhere, you can add it to the Password Safe and request a Verify password. One of the QGrip Server worker processes will try to login on the Instance using the Password you entered. If login attempt is successful, the Password Safe is updated and the Password status is set to OK. If it fails, the Password status is set to “Safe <> Instance” and you have to wait for 1 hour until you can try again with a different password. This delay is to prevent hacking and that Accounts are being locked out.




**Password Status in Safe**

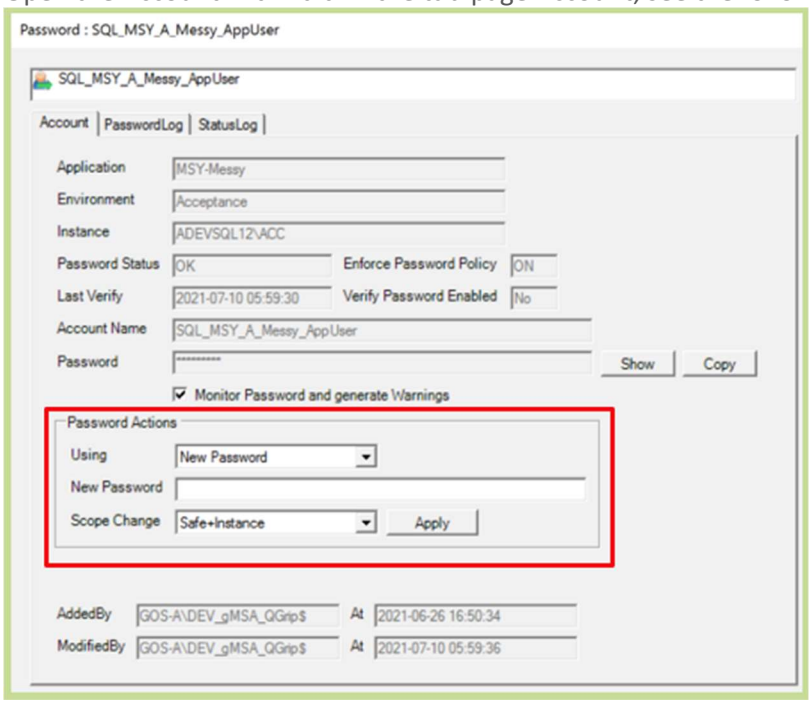
| Password Status | Description |
|---|---|
| OK | Password Safe = Password on Instance |
| Not in Safe | The password is missing (empty) in the Password Safe |
| Safe <> Instance | Password Safe <> Password on Instance |
| Not on Instance | The Account is in the Safe but no longer exists on the Instance. This should never happen. |




If there are inconsistent/incomplete passwords, separate entries are shown in the Explorer so that they can be found easily. These special containers will stay until you reopen the window. The Password with "not OK" status can also be found under the Application.

## 10.1 Edit Passwords

Open the Account with Edit. In the tab-page Account, see the following section:




What you can do in Password Actions depend on current Password Status and if Verify Password is Enabled. If no actions are possible, Password Actions will be disabled. Otherwise, only valid choices will be present.

Using (Password)

| Using (Password) | Description |
|---|---|
| Existing Password | Use password in Safe, only possible when there is a password. |

| | |
|---|---|
| Generated Password | A password of specified length will be randomly generated and used. |
| New Password | Enter the password manually. |

Scope change

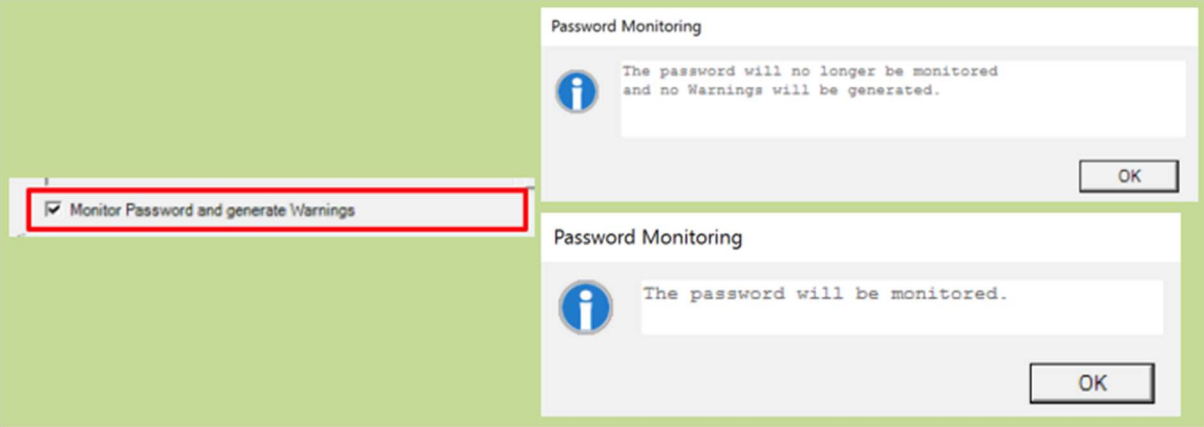
| Scope | Description |
|---|---|
| Verify | Push a Verify Password job on the Queue to see if password is correct. |
| Safe | Save password to Password Safe |
| Safe + Verify | Save to Safe + Verify Password |
| Safe + Instance | Save the password to the Password Safe and change it on the Instance. This will only be possible if the Password Status is OK. |

When you press Apply you need to confirm the action. If the scope includes Verify or Instance, you will receive a Personal message when the action has taken place.

The content of the tab-pages is refreshed when switching from another tab-page.

**Important**
When you change the password on an Instance, all clients using that account will need to change their connection string. Handle with care!

## 10.2 Monitor Password and generate Warnings




By default, QGrip will monitor the Password to make sure that it has the correct password and issue Warnings if that is not the case. Is monitoring of the Password is not wanted of a certain login, uncheck the 'Monitor Password' check box for the login.
To reactive, check the 'Monitor Password' check box again and the monitoring will restart.

## 10.3 Delete Accounts/Passwords

Accounts/Passwords can only be deleted when the current tab-page is 'Not on Instance'.

## 10.4 Password Log + Status Log

In Edit mode, the tab-pages PasswordLog and StatusLog will be present next to the Account tab-page.

**PasswordLog**
Shows all Password Actions initiated by a user, including former passwords.

**StatusLog**
Shows a history of Password Status.